NOVEMBER • 1959

Supervisory Management

SOMETIMES IT PAYS TO DISAGREE

Successful managers *are not* always satisfied with the status quo.

THE SUPERVISOR AND THE LABOR CONTRACT

The operating manager can make or break the contract!

KEEP IT QUIET!

Earmuffs, anyone? Better still, a scientific approach to noise control.

TRAINING: HOW MANY METHODS DO YOU KNOW?

Test your training IQ against these 14 proven methods.

AMERICAN MANAGEMENT ASSOCIATION

"This I Believe..."

Our Most Valuable Assets

By J. Paul Getty

AMERICA'S most valuable and unique commodities are its limitless ingenuity and its boundless energy. No one in this whole world can work industrial miracles as well as the American businessman and the American worker when the chips are down. I think we are all beginning to realize that the chips *are* down. And in the last analysis, that is precisely the kind of challenge Americans love most, to which they react and respond best.

VOL. 4 NO. 11 • NOVEMBER 1959

Supervisory Management

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SUPERVISORY MANAGEMENT, November, 1959, Volume 4, Number 11. Published monthly by the American Management Association, Inc. Publication Offices, 10 Ferry Street, Concord, N. H. Editorial and Business Offices, 1515 Broadway, New York 36, N. Y.

Address all correspondence to SUPERVISORY MANAGEMENT, *American Management Association, Inc., 1515 Broadway, New York 36, N. Y.* Please notify us of change of address *six weeks in advance*, and include postal-zone numbers in all addresses.

Subscriptions: $7.50 per year (AMA members $6.50); bulk rates available. Single copies $1.00 (AMA members $.75). Second-class postage paid at Concord, N. H. The Association does not stand sponsor for views expressed by the authors in articles issued in or as its publications. Copyright © 1959 by American Management Association, Inc.

Printed in U.S.A.

SOMETIMES IT PAYS TO

By Gordon Hanes

President, Hanes Hosiery Mills Company

Don't be afraid to upset the applecart: The result may be valuable new ideas.

WHAT DOES TOP MANAGEMENT look for in a supervisor? Our management, like most others, wants a man who knows his job, who produces at top efficiency, who gets along with people. We also want a man who is firm, fair, consistent.

But in addition, we look for something a little different. Years of experience have taught us to look for dissatisfaction and disagreement; for a man who has ideas, who isn't afraid to make a mistake.

Dissatisfaction

Perhaps a key quality is dissatisfaction. No foreman who is really on top of his job is ever completely satisfied with the methods he is using. This constant dissatisfaction with his present methods should result in better methods. This may mean simply eliminating certain hand movements in an operation; it may mean adding machinery to do things that were previously done by hand; it may even mean completely eliminating the entire job by changing a process that precedes it.

It is apparent to management, and becomes more apparent every day, that inflation has become almost a part of our way of life. Efficiency is the only successful method of combating the rising cost of living, and the only way to become more efficient is to be dissatisfied with the methods we are now using. Since supervisors are the people who actually put methods into practice, it is natural that on them should fall most of the burden for recommending new methods.

One of our subforemen was dissatisfied with the training program

we were conducting in his department. He felt that the program was generally ineffective, and that the training time was too long. The program was about 30 years old; the subforeman felt that we needed some new training methods. Because of his strong disagreement with his foreman—and the fact that he wasn't afraid to express it—we worked out an excellent training program that has saved us a considerable amount of money and has cut training time in half.

Ideas

Out of dissatisfaction comes the second requirement of foremen, and that is ideas—ideas for better ways to operate, for better ways to get along with people, for new products, and for new uses of old products.

Some people may object that originating product ideas is the responsibility of the sales force or the advertising department. But when you come right down to it, neither of these departments could possibly know what the machines or the people in the plant are capable of producing. The foreman, who knows his machines and his people, is better equipped to come up with easily applicable new ideas than anyone else in the organization.

For several years, our shipping foreman had been completely dissatisfied with the methods and procedures used in his department. Through his continued campaigning, we have installed a modern shipping conveyor which has cut down the amount of labor involved in packing, casing, and shipping more than 30 per cent.

Mistakes

A third requirement of the successful supervisor is that he shouldn't be afraid to make mistakes. People need the freedom to experiment, to try out new methods or materials; inevitably, these trials result in some mistakes. When everyone in an organization is afraid to try anything new because of the fear of being wrong, progress stops.

Progress begins when people feel free to go to management and say, "I've got an idea; it may not work, and it's certainly different from anything we've done before; but I'd still like to try it." The idea should be tried—as long as the cost will not be too great if it fails. If it doesn't work, perhaps it can be modified. And even if it has to be discarded entirely, the person who tried it should be encouraged to keep suggesting new ideas.

Mistakes, after all, don't always have dire consequences:

The foreman of our folding department received packing instructions for a batch of unbranded hosiery. He read the instructions, put them to one side, then explained the operation to his employees in his own words—thinking through the job, step by step, as he went along. In doing so, he unintentionally departed from the original in-

structions and skipped one step that was totally unnecessary!

This supervisor's "error" in interpreting the instructions eliminated several operations in packing, cut the time required for the job, made the job simpler—and resulted in a much neater, more attractive package of hosiery!

Disagreement

Our fourth requirement is disagreement. Everyone in the organization must feel free to disagree with anyone else when he feels that he has a good reason. It's been said that when two people in management always agree, one of them is unnecessary. Disagreement sharpens ideas; it cuts down on mistakes; it makes everyone think through a problem more thoroughly, provide more facts, and come up with better ideas.

Disagreement is closely related to dissatisfaction with present methods, ideas for better methods, and the freedom to make mistakes. People who are completely satisfied with their present methods and have no ideas for improving them, who are insecure and are afraid of making a mistake may also be quick to disagree—but only when a new idea is proposed. They will assume that if something has been done one way for 40 years, there is no other way to do it. When a new method is proposed, they will look for reasons it won't work rather than for ways to make it work.

Our management operates on the basis that if a thing has been done the same way for a number of years, there is probably a better way to do it. Disagreement, therefore, should be positive; it should point out the possible stumbling blocks; but at the same time, it should suggest methods of overcoming them.

Information

We also expect our foremen to be informed—and to transmit information up and down the line. The people closest to the actual performance of a job will know more than anyone else about it and about the people performing it. This information should be made readily available when any new method or plan is being discussed. When higher management schedules a discussion of a new method, the supervisor should collect his information and put it in logical form. This way, nothing will be forgotten. And what is more, his own objections to the proposed method may vanish when he puts all the facts down on paper.

Even more important is the information the supervisor can supply higher management about his work group. This doesn't mean that he should be a gossip. He should, however, keep the people to whom he reports constantly informed about the changing climate of feeling and opinion in his department.

The supervisor should be close enough to the people in his department to sense what's on their minds; he should be conscious of their problems, not only in the plant, but also

THE MAN WHO GRIPES PRODUCES!

EXTENSIVE INQUIRY into the factors governing human productivity, conducted by the Institute for Social Research at the University of Michigan, has thrown new light on the nature of the gripe. In the absence of serious psychic disturbances, the man who gripes about his work, his boss, and his company is better executive material than the man who either has no complaints (and may be emotionally subservient) or keeps them to himself (possibly because he lacks courage to express them). There is evidence that the personality characteristics that dispose a man to expressions of criticism are also the very ones essential to competence.

Other studies confirm this. It has been found, for example, that the more creative a person is, the more likely he is to be in conflict with his associates and superiors.

—ALLEN HEWLETT
in *Advanced Management*

at home. If an employee has a sick child or a sick husband or wife, that employee's work is going to suffer. This must be taken into consideration when the supervisor discusses the employee's work. No man can completely isolate himself at work from his home environment. The man who walks the floor all night with a sick child is likely to be the man who comes to work the next morning with a splitting headache.

In most cases, the foreman can't solve home problems. But a sincere expression of sympathy can help, and it will certainly bring him closer to his people.

Firmness

The sixth quality essential to good supervision is firmness. The supervisor cannot let an employee fall down on his work. It hurts the employee, of course—and it also hurts the morale of the other people in the department.

People tend to lose respect for someone they can walk all over. Look at children in a classroom. The teachers whom my children liked best were those who required the most of them and put up with no foolishness. The teachers they usually liked least were those they could most readily take advantage of.

This is equally true in the plant. When a foreman hesitates to correct an employee, the employee's work suffers, the work of the department drops off, and the employees aren't happy: They don't feel they are being directed by someone who knows his job.

When management is unsure of itself, when there is obvious vacillation in policies, when the supervisor does not state policies firmly

This Man Is Going Places!

THE MAN WHO has these qualities shows the leadership that will produce results for the company, and help him advance to a better job:

1. *Dissatisfaction*—because the man who is dissatisfied with present methods will look for better ways of doing things.

2. *Ideas*—because the man closest to the operation is best equipped to originate ideas and improvements.

3. *The courage to make mistakes*—because progress depends upon the willingness to experiment; and no trial is entirely without risk.

4. *Disagreement*—because yes-men don't get things done.

5. *Information*—because higher management needs to be informed; and because the good supervisor knows the people in his department.

6. *Firmness*—because employees respect a man who sticks to his guns.

7. *Fairness*—because people don't respond to a boss who plays favorites.

8. *Consistency*—because a superior needs to be firm and fair, not just when he feels like it, but all the time.

9. *Moral conviction*—because a leader can expect his example to be followed.

and carry them out firmly, a sense of insecurity results. On the other hand, when the foreman congratulates the employee when he does a good job and points out when he is not doing a good job, the whole atmosphere is clear and free of doubt and uncertainty.

Fairness

The supervisor must also be fair with everyone in the department. Nothing can upset a department—even an entire operation—more than a foreman who plays favorites. It has been said that man must avoid not only evil but the appearance of evil, and this applies forcibly to supervisors, for people are constantly on the lookout for evidences of partiality in their boss. He must be careful never to accept favors from employees; he must avoid becoming too intimate with anyone in the department.

Consistency

The supervisor must be firm, he must be fair, and he must be consistent in both. He cannot be firm today and lax tomorrow; he cannot be fair to everyone except his

nephew or his next-door neighbor. He cannot allow his personal feelings, attitudes, or problems to enter into his dealings with people for whom he is responsible on the job.

The foreman who says "good morning" only on mornings when he feels unusually well will inevitably hurt some feelings. As a manager, he must rise above his own feelings when they might hurt others on the job. The good supervisor can't be sometimes a lion and sometimes a lamb. He has to cultivate consistency.

Moral conviction

The last quality that we look for in a foreman is probably the most important of all: moral conviction. Besides assuming the responsibility for production and quality, he must assume responsibility for leadership.

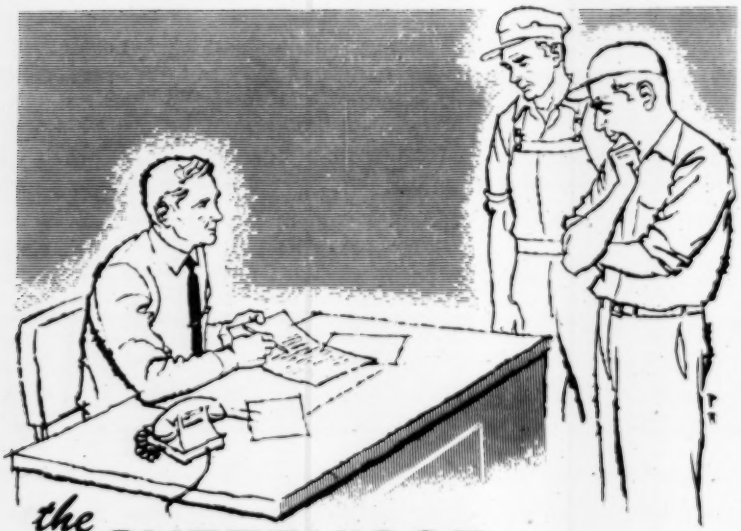
If the foreman, as a leader, sets a good example, some people will follow in his footsteps. If he takes positions of leadership in helping others, the people under him will be encouraged to do the same. If, on the other hand, he refuses to inconvenience himself for the good of others, those under him may well adopt the same point of view.

This man will produce

You will notice that knowledge of the job, quality, production, and profit haven't even been mentioned. I am convinced that the foreman who has the other qualities we have discussed will inevitably run a good department that will turn out quality products efficiently. The man who is *dissatisfied* with present methods, who has *ideas* for improving those methods, who is willing to *try* the ideas, who is willing to *fight* for his ideas, who has *information* about his work and his people, and who acts on this information *firmly, fairly, consistently,* and in the light of his *moral convictions,* will run a good department.

These, then, are the qualities management should expect to find in supervisors. No supervisor will lack all these evidences of character, nor can any one person be found who embodies them all in the highest degree. But a man's ability to lead and to manage is in direct proportion to his possession of these qualities. ♦

BY 1968, there will be many more American families with annual incomes over $7,500, and far fewer earning less than $2,000 a year. That is the prediction made by *Family Income Patterns, 1947-1968,* a report released recently by the Stanford Research Institute. Nearly 19 per cent of all families will earn over $7,500 annually, says the report, as opposed to less than 7 per cent in 1947. Over the same span, families earning less than $2,000 a year will decrease from 25 per cent to about 11 per cent.



the SUPERVISOR *and the* LABOR CONTRACT

By Dale D. McConkey

Vice-President of Industrial Relations
Beech-Nut Life Savers, Inc.

The precedents you set from day to day can be as binding as any contract provision.

IS YOUR COMPANY in the throes of a new labor contract?

If so, you have probably been aware of added strain among top managers, many extra meetings and conferences around the plant, and lights burning well into the night. The whole corporation may take on a new look, as executives come and go to summit conferences between management and labor. They may include company officers, chief administrators and their staffs, labor lawyers, economists, researchers, negotiators, and other consultants.

Yet who plays the most responsible role of all? The line supervisor. Even if he's never present at negotiations, he is his company's primary agent.

Why? Because once a labor pact is negotiated, agreement reached, its literal wording spelled out, and the document signed (which may

take about four weeks), it is turned over to the supervisor for day-to-day administration. And then it becomes his job—usually for at least a year, but maybe for as many as five! His assignment is to see that the contract is administered *as negotiated*.

That assignment may not seem difficult when the contract specifies exact procedure. But, for reasons to be discussed later, it seldom does. Much of the time, the supervisor must rely on his own judgment. His administrative decisions may make the contract a success—or a failure.

Good judgment is especially important. Too often, the supervisor may shrug off a complaint by remarking, "It's not in the contract. Therefore, it's not a grievance." Later, he may discover that his failure to listen has opened the door to a serious labor dispute.

Who's to blame?

It's true that the supervisor is sometimes blamed for poor contract administration when it is not his fault at all. Often it is the fault of others—the people who should provide the supervisor with the proper tools for carrying out his duties.

In fact, the following prerequisites of good industrial relations must be satisfied before the supervisor can properly be held responsible for administering a contract:

1. The supervisor must be given an *effective* opportunity to comment on and to offer suggestions about the contract's negotiation.

2. After the contract has been negotiated, the supervisor must be thoroughly briefed on its provisions.

3. For advice and guidance in administration, the supervisor must have access to competent specialists in industrial relations.

Although it's usually higher management's responsibility to offer these three opportunities, the supervisor can point out the need for them by making his problems known and requesting help.

Effect of past practice

A labor dispute is usually submitted to arbitration because the two parties to the contract—labor and management—have reached a deadlock. It is the arbitrator's job, then, to judge the dispute according to the intent of each party—as revealed in the contract. Sometimes, when the contract is not clear, or when it is silent about the disputed issue, he must look further—to past practice or precedent. Thus, a labor contract may be considered to cover a specific issue if it covers a related provision that could be stretched to fit the issue—or even if there is no provision at all. This results from procedure that is standard in most arbitration.

Let's consider an example: A labor contract between a large dairy plant and its truck drivers provided that all promotions, layoffs, and recalls were to be based on seniority. But seniority for any other purpose

was not recognized in the contract.

The drivers' supervisor fell into the habit, over a period of eight years, of assigning overtime work on a seniority basis, too. When it was pointed out to him that his four senior drivers were the only ones ever to get overtime, he discontinued the practice, and started to rotate overtime assignments among all drivers. This gave each man a chance to draw the extra pay that they all wanted.

The four senior drivers filed a grievance. They charged that the supervisor had violated their seniority rights by not giving them first crack at all overtime work. In answering the grievance, the supervisor stated that, according to the contract, he was required to observe seniority *only* in promotions, layoffs, and recalls.

The grievance wound up in arbitration, and the arbitrator ruled in favor of the four drivers. He explained that his decision was based on the precedent established by the supervisor.

The company argued that apportioning overtime among all the drivers was only fair. But the arbitrator's duty was to interpret the *intent* of the parties to the contract. In this case, intent was spelled out by eight years of consistent practice.

Failure to enforce

Supervisors can also kill off large sections of a labor contract by failing to comply with the provisions, and thereby letting them atrophy.

Consider a contract that prohibits employees from smoking in certain areas of the plant. If a supervisor never takes action against employees who smoke in the restricted areas, he has revoked the "no-smoking" provision just as surely as if the company and union had agreed to delete it from the contract.

(In that case, before the company can ever enforce this rule in the future, a notice must be posted informing all employees that the contract contains such a rule and that, henceforth, it will be enforced. Then, of course, it must be enforced against *every* violator.)

Similar enforcement failures tend to occur in other areas, such as washing-up or rest periods, safety rules, and absenteeism or tardiness.

Failure to establish precedent

Another kind of supervisory failure can radically alter the company position—failure to establish precedent.

For instance, the labor contract may provide that the company shall have the right to transfer employees temporarily from an underloaded department to an overloaded one to meet production requirements. A possible issue: Must the supervisor transfer the most recently hired employee—in other words, according to reverse seniority—or is he free to transfer the least busy worker?

The latter will usually be better for the company. Unless supervisors

actually do transfer the least busy employees, however, there's no proof of how management interprets this provision. Without such proof, the clause is seriously weakened.

Zipper clauses

One clause that now appears in many contracts—especially those with Teamster affiliates—makes it doubly important for the supervisor to check and recheck any privilege or benefit before he grants it. This is the so-called "zipper clause" which provides, in essence, that any privilege enjoyed by employees at the time the contract is signed must be continued during the life of the contract. This provision holds whether the specific privilege is stated in the contract or not.

Thus, a zipper clause is broadly inclusive in its effect and can be made to cover almost any situation. Arbitrators have ruled, for example, that such a clause compels the employer to continue practices like these:

Allowing coffee breaks in addition to rest periods.

Paying higher job rates than those contracted for.

Granting leaves of absence.

Allowing early quitting so that employees can check out and leave the premises by the stipulated quitting time.

Granting paid lunch periods to hourly paid employees.

For example, one supervisor had been letting employees, when their jobs were finished, punch out and go home early, even though they were paid for eight full hours. When he began, instead, to assign them more work—to fill out the day and to restore efficiency—a grievance resulted that went into arbitration. Because of a zipper clause in the contract, it was ruled that the company didn't have the right to discontinue the going-home-early practice. Even though the arbitrator's judgment might seem questionable, supervisors must cope with such eventualities.

The Union Contract: A Cast of Characters

The supervisor—who, by enforcing or not enforcing the contract, can make or break it; and who, therefore, must know its provisions thoroughly.

The employees—who should be treated fairly, in accordance with the contract.

The shop steward—whose job it is to protect the union's rights.

The company—whose rights the supervisor must protect.

The industrial-relations department—who can give the supervisor advice when he needs it.

Interpreting the contract

Probably no contract can be written to cover every situation that

may arise during its life. Even if it were possible, it would seldom be desirable—such a thorough contract would probably fill several large volumes.

Instead, most labor contracts today are only *abbreviated* guides for the conduct of union-management relationships. The supervisor who must interpret such a condensed document must frequently fall back upon his judgment.

This requires extreme care: After the supervisor has made a preliminary interpretation of a clause, he should examine his interpretation closely to determine if it agrees with over-all policy, if it adequately meets company needs, if it would change under differing circumstances, and, finally, if it could ever be used *against* the company. Unless the subject is peculiar to his department alone, he should consult his boss; the personnel, industrial-relations, or legal department; or the plant manager, to determine the over-all company interpretation. He should enter these consultations with recommendations of his own—with evidence of his own decision-making ability.

Consider, for instance, an overtime situation: The shop steward in one department of a large plant asked the supervisor to let his employees decide among themselves who would work overtime. This sounded reasonable enough—until the supervisor checked with other departments. He learned that the change could kick off a host of major problems—for instance, when seniority, otherwise a basic overtime criterion, was neglected. Moreover, the industrial-relations department advised that granting the shop steward's request would result in the supervisor's giving up an important managerial right, the right to assign and control the workforce.

Joint determination

Simply stated, a joint-determination clause gives the union a voice in decision making. Any decision made under such a clause is invalid without the concurrence of the union.

Top managers, rather than supervisors, are responsible for making a formal agreement to resolve specific issues by means of this clause. Nevertheless, the supervisor may also, knowingly or not, commit the company to joint determination.

Consider the supervisor who, when he must mete out discipline, calls in the shop steward to share the decision. Together, the supervisor and steward discuss the violation, agree on the penalty, call in the offender, and tell him of their decision. None of this is required by the contract—but by cooperating to this extent, the supervisor establishes a practice that violates one of management's most important rights—the right to maintain discipline.

Instead, the supervisor should make his disciplinary decisions first and, second, put them into effect.

Then he is free to discuss the case with the union. Talking it over before putting it into effect may leave the company prey to joint determination—even though the supervisor fulfills explicitly the decision that he made by himself.

Does this mean that the supervisor shouldn't discuss the case with the union? On the contrary, it's not only advisable, but also good labor relations. In fact, there should be no hesitation or animosity between supervisor and steward. Each should realize that the other has definite functions for which he alone is responsible: The steward's duty is to represent employees who are union members and to insure that they receive all rights and benefits that the contract allows them. The supervisor's function, of course, is to operate his department and to protect management's rights.

Broadly speaking, the cardinal rule of all labor relations is that both management and the union have certain prerogatives: The right to *make* decisions is management's; the right to *protest* these decisions is the union's. Whenever either party attempts to trespass on the right of the other, good labor relations have been violated.

Grievances

An integral part of the supervisor-steward relationship is the handling of grievances. The supervisor certainly should not solicit grievances, yet he might welcome those he does receive as real aids to finding and solving problems in his department. The grievance procedure thus provides a systematic method for coping with any alleged contract violations that occur.

The supervisor who tries to evade

How to Administer a Contract Successfully

1. Enforce contract provisions to keep them alive.
2. Establish proper precedents that indicate the company's interpretation of contract provisions.
3. Don't establish precedents you'll be sorry for later.
4. Check any privilege before you grant it if a "zipper clause" requires you to continue the privilege throughout the term of the contract.
5. Be sure your interpretation of the contract agrees with company policy.
6. Discuss cases with the shop steward *after* you have put them into effect (unless you have a joint-determination clause), or you'll always have to consult the steward beforehand.
7. Handle grievances when they arise.
8. Don't try to beat the contract with sharp practices.

a grievance—whether by sloughing it off or by accepting it only in a critical manner — is missing an opportunity to keep his operation running smoothly. Many a molehill-to-mountain crisis has occurred because a simple complaint was not treated properly—or was even suppressed—until it festered and ultimately erupted as a full-scale labor problem.

Sharp practices

Some supervisors go to great lengths devising ways "to beat," they say, a labor contract. A typical maneuver: Trying to avoid payments for supper money after two hours' overtime, as called for in the contract, by dismissing employees just a few minutes before the two-hour deadline. The supervisor may say that he is saving money for the company. Instead, he is almost certainly creating a problem. In later negotiations, the union will undoubtedly demand either an overtime minimum of at least two hours, or giving supper money after a briefer time span.

To justify his own sharp practices, a supervisor may contend that he is trying "to do a good job for the company"—although, in fact, he may not be protecting company authority as much as his personal hold over employees! Whatever his motive, he is probably working *against* the company's best interests. Sharp schemes and stratagems usually backfire.

The supervisor who tries them overlooks two vital facts: One, the negotiation of a labor contract is usually a *team* effort; it represents the best results of *collective* bargaining between management and labor. For one supervisor to try to revoke a contract through sharp practices is to try to substitute the judgment of one man for that of many. It just doesn't work.

Moreover, sharp practices invite sharp practices. Since the contract is a pact, not to observe it—in spirit as much as in fact—is unfair and quickly recognized as such. The union can be expected to retaliate, perhaps by playing the loopholes, too.

Ten positive steps

So far, we've emphasized mostly the pitfalls that a supervisor must try to avoid. What positive steps can he take in order to fulfill the spirit and letter of the contract? Here, in summary, are ten that will help:

► 1. Know—and understand—the provisions of the contract. The supervisor who is as familiar with the contract as most shop stewards are will know it very well, indeed.

► 2. Be constantly aware of managerial rights to preserve them through *use* and thus keep them in effect.

► 3. Honor *all* the contract's provisions. If both management and labor considered a specific clause worth negotiating, it deserves careful administration.

► 4. In a fair, impartial man-

ner, maintain the contract's provisions for *all* workers, without exception.

► 5. Consider grievances not affronts to authority, but aids in ironing out problems in the department.

► 6. Thoroughly consider every practice—and its ramifications—before putting it into effect and thereby establishing precedent.

► 7. Regard subordinates as associates, not as antagonists or anonymous union members.

► 8. Establish a good, workable relationship with the shop steward. Remember that he, too, has a job to do and try to respect his position. In return, insist that he similarly respect your position—as a supervisor and as management's representative.

► 9. Report to the proper company authorities any problems you have with the contract and suggestions for improving it.

► 10. Seek the advice of the company's industrial-relations department when you need it. ♦

"This isn't a social call, mother."

By Carl E. Osteen

Administrative Assistant
The New York Times

Are you sure you'd want that paperwork done if you knew how much it cost?

IS THERE anything *more* you can do to control paperwork costs? If your office is typical of most, costs are continuing to mount, despite methods improvement and various money-saving devices. And the reason is that office costs can never be held in check until they are dealt with at the source: the individual people who incur them. Often without realizing it, a manager—or anyone in the organization—may be creating costs by requesting unnecessary copies of a form, unnecessary reports, or figures he'll probably never use.

No one would say, of course, that additional copies of a form are never worth the expense of turning them out. Naturally, a successful manager is entitled to whatever he feels is necessary to do the job. But

if he is responsible for paperwork costs, he certainly should know what those costs are.

They'll sit up and take notice

What we need is new, imaginative ways of bringing costs to the attention of the people who can do something about them. One of the best attention getters is to translate paperwork costs into the everyday language of the person who creates the costs. For example, the sales manager of one company innocently asked the recently expanded tabulating department for a sales report on all 15,000 active customers, on a weekly basis. The fact that a whole week might go by before he could handle these 15,000 sheets of paper didn't matter; sales couldn't be ignored, and the report was set up for production.

When the first group of reports was sent to the manager, a note was pinned to it, saying, "If you would rather visit your West-Coast salesmen instead of receiving this report in the future, you can do it. The cost is exactly the same." Needless to say, the report was drastically curtailed.

The advertising department of a publishing company wanted some statistics in report form. After a schedule was estimated, the department head was told that the cost of producing the form would be equivalent to the sale of half a million extra units of his company's product that day. The request was withdrawn.

A production-department manager asked for a new statistical record-keeping operation. When the paperwork cost of this addition was compared with the maintenance cost of one of the company's significant departmental operating areas, he dropped the idea.

After the fact

Here's an after-the-fact illustration: The head of a tax department requested statistics from all accounting locations when the Social Security program went into effect. He wanted as much information as possible before the program began. Although he knew within the month that he would no longer need much of the information, he didn't stop the flow of reports. Twenty-three years later, shortly after a forms-control program had been installed, the department was asked why the information was necessary; the answer, of course, was that it was *not* needed. A quick study showed that at least $15,000 in labor had been wasted over the years.

The price tag

Pricing all requests for new information will bring the point home where it counts. Every new request for additional information in a new report form or in an existing form should have a price tag on it. And, one way or another, the right people

should get to see that price tag.

All existing reports should be priced—particularly reports run on data-processing machines. The very fact that punched-card and electronic installations can do so many wonderful things is reason enough for making definite checks. Many companies are paying heavily for their fascination with these pieces of equipment—first punched-card machines, now computers—and for their not realizing what it takes to keep these units operating economically.

When management understands that such equipment must be integrated into the over-all operation with emphasis on quality rather than quantity, then progress can be made. Unfortunately, recognition of costs sometimes comes only through the back door. Putting price tags on all reports may be the way to get started.

Ask "why"

When the report cannot be nipped in the bud or eliminated, asking "Why?" may turn the trick. *Why* must we continue to do things the same old way? *Why* should the same frequency, the same volume, and the same detail be maintained? *Why* is it necessary to measure production quotas and results in both hours and dollars, when hours should be enough to measure efficiency? *Why* is it necessary to show previous years' figures on each report, when old reports are kept on file? *Why* should report figures be transcribed into a different form to suit the personal preferences of an overparticular manager?

Spotlight the savings

The most popular answers to these questions include, "It's always been done that way," "Old Ben likes his reports that way," and "Who am I to put my job on the line for what I think is right?" Take a look at the head of the division who once caused a major reshuffling of punched-card coding because he refused to consider the number "8" as the identifying digit of his division. His whim cost his company plenty of money. But the day is past when managers can afford to indulge in pet likes or dislikes.

Continue the reports if you must, but hang price tags on them in language that hits home. Spotlight the savings that are possible by eliminating, streamlining, and revamping. These are never easy achievements—but they pay off.

It's everybody's business

It is increasingly clear that success in cutting paperwork costs depends on the attitude of every manager in the company, for finding shortcuts in paperwork is everybody's business. Management has proved that it can tackle big production jobs, big selling jobs, big jobs of all kinds, when it is neces-

PRODUCTION CONTROL IN THE OFFICE

A great deal of effort has been expended to establish a dividing line between office management and production management. An unfortunate consequence of the resulting barrier is that many of the proven techniques of successful production management have not been carried over to the office. Pacing devices like sign-out sheets and schedules are fundamental tools for achieving high productivity, yet they are seldom used and less often fully understood by office managers.

Although methods improvement is a constant challenge to the manager, the most impressive opportunities for achieving important savings in many offices I have observed lie in the development of realistic concepts of work pace and good techniques of production control, and in the application of an aggressive program for motivating employees to achieve established standards of performance.

In several departments of our own company, for example, small office forces had performed general office work at what appeared to be satisfactory levels of performance. A review of the opportunities for standardization, however, disclosed that the work pace previously considered satisfactory was actually as low as 50 per cent of reasonable standard. I believe that this situation is the rule, and not the exception, in offices throughout the nation.

—BUDD SILLS
Vice-President and General Manager,
Spiegel, Inc.

sary to watch every penny in order to black out the red.

A production manager in hardware knows the production costs of every thread in an entire bucket of bolts; a sales manager can give you the count on the number of telephone poles between customers from Keokuk to Kokomo; the treasurer of a mining company can quote the hour-by-hour price of rocks and bonds. It's time that these managers were required to know also the cost of the paperwork they originate.

Paperwork isn't just so many pieces of paper. It is the motivating factor behind practically every major decision in business today. It is the cause of an ever-increasing cost that will soon surpass all other cost areas of a company—if it hasn't already done so. ♦

By Victor H. Pomper
Vice-President, H. H. Scott, Inc.

Excessive noise isn't something you "just have to live with." Here's why.

HAVE YOU EVER visited a broadcasting studio? If you have, you may have been struck by the pains that are taken to eliminate unwanted noise. The room is often in the heart of a building, removed as far as possible from traffic noises in the street. Double doors, separated by a sound-killing foyer of space, lead into the broadcasting chamber. Its walls are extra thick and probably lined with acoustical material to deaden echoes. The ceiling is covered with sound-absorbent material. Inside, audio engineers may require heavy drapes, special plastic desk pads, soft rubber casters on chairs, or other equipment to deaden sound and ground static electricity. Records and tapes are transcribed with special high-frequency treatment—to eliminate unwanted scratch, rasp, or click.

Broadcasting technicians in radio and TV are sensitive to noise. It's part of their job, for utter quiet is the best background for a broadcast.

The supervisor, too, encounters problems of noise from time to time.

And, chances are, these problems are growing.

A growing problem

Noise is becoming increasingly important and expensive to industry. In Wisconsin, one of the first states to be concerned with job-connected hearing disabilities, over $400,000 has been paid in workmen's-compensation claims for hearing losses attributed to noisy working conditions. No count can be made of accidents and work disruption caused at least partly by noise. It's a public-relations problem, too. Recently, a large Eastern manufacturer decided it was cheaper to buy a number of houses near his plant than to face damage suits by homeowners.

Noise problems are increasing for three reasons: First, there is more noise. As machinery becomes larger and faster, the noise from it has a way of growing too. Second, noise is less readily tolerated than it used to be. Third, as noise becomes better understood, its harmful effects are more easily recognized, not only by experts, but by everyone who must work in noisy environments.

The noise problem in industry is complex, and corrective action may be difficult and costly. Basically, noise is a "people" problem (even though excessive noise may also be an indication of machine malfunction). Excessive noise may cause cumulative damage to hearing. Noise may also interfere with spoken communications, such as warnings and instructions. It may cause considerable annoyance, and wear and tear on nerves. The resulting stress reactions may adversely affect not only relationships with employees, but also—if the noise is loud enough—the company's relationships with the surrounding community.

No problem is simple when it involves human reactions—both physiological and psychological—and then complicates these with difficult technical problems.

Hearing damage

Let us examine individual aspects of the noise problem in slightly greater detail. In the first place, prolonged exposure to excessive noise *may* cause cumulative damage to hearing. The severity of damage depends on length of exposure, individual susceptibility, and the character of the noise itself. Prolonged exposure under extreme conditions can result in virtually complete loss of hearing.

Most states have recognized noise-induced hearing loss as compensable under workmen's-compensation laws—and these laws are often interpreted liberally in favor of claimants. Often the employer is considered guilty unless proven innocent. And in many cases, compensation awards are made whether or not time is lost from work or earning capacity is reduced.

The psychic and economic losses

from hearing damage are substantial, although hard to pinpoint. The problem is further complicated by the fact that individuals differ in susceptibility, and also by the fact that everyone suffers mild but progressive hearing loss with advancing age.

Furthermore, hearing damage that is acute under conditions of steady noise exposure may be partially or completely reversed after a period of relief from exposure. In fact, most states require that final evaluation of compensation claims for hearing damage be deferred until the claimant has been out of the noise environment for at least six months.

How noise affects morale

While hearing loss may be the most acute and dramatic noise hazard, there are many other adverse effects. Noise may mask normal speech and interfere with production efficiency; it also increases susceptibility to accidents because workmen cannot hear, or because they misunderstand, instructions or warnings. Furthermore, sustained or excessive noise may increase physiological and psychological fatigue substantially.

In some cases, it is true, moderately steady background noise may actually improve performance and morale by lessening the impact of sudden noises which cause "startle" reactions in employees. But in general, communication is so important in industry that anything adversely affecting understanding is a major problem. Often the many small, intangible leaks in efficiency, morale, and communications, in total, outweigh more dramatic damage.

Frequency and intensity

The average hearing of a normal person may respond to frequencies from about 15 cycles per second to over 15,000 cycles per second. And the loudest sounds to which human hearing responds are likely to have more than ten million times the sound pressure of a barely audible signal. So the human ear functions over very wide ranges of both intensity and frequency of sound. Furthermore, the ear responds differently to different frequencies at different levels. When the sound is relatively loud, the ear responds more or less uniformly to all frequencies, but as the loudness decreases, the ear becomes increasingly insensitive to very low or very high frequencies.

The intensity of a sound is measured by making a measurement of its pressure—which is expressed by a logarithmic unit, the decibel (abbreviated db). Normally, both the intensity and the frequency of the sound are important in its evaluation as a noise hazard. But as a rule of thumb, sounds above 90 db can be considered potentially hazardous and worthy of further study by frequency analysis. Roughly, this 90-db level is probably being exceeded if

you can't hear or make yourself heard without shouting, at arm's length. This is not as drastic as it sounds. A noise level of 90 db may be exasperating or inoffensive, depending on whether it's low pitched or shrill, steady or intermittent.

What is noise?

Noise may be defined as undesirable sound. Sound, in turn, is an audible alternation in air pressure, and the auditory sensation caused by such pressure variation on hearers' ear drums.

Noise, like heat, is transmitted energy. Like heat, noise may be radiated directly through the air, from the source to the receiving surface, or it may be conducted through solid material. Just as heat is more readily absorbed by dark bodies and reflected by shiny, bright surfaces, noise is more readily absorbed by porous, perforated objects and reflected by hard, smooth surfaces.

In many respects, controlling noise is like controlling heat. Just as insulation may prevent transmission of heat, vibration isolation may prevent transmission of noise. When heat is inadequately dissipated by

HOW LOUD IS IT?

Decibels	How Loud?	Sound
—120		
—110—	Deafening	Thunder; nearby riveter; elevated train; boiler factory.
—100		
—90—	Very loud	Loud street noise; noisy factory; truck (unmuffled); police whistle; Niagara Falls (loudest spot).
—80—		
—70—	Loud	Noisy office; average street noise; average radio; average factory.
—60—		
—50—	Moderate	Noisy home; average office; average conversation; quiet radio; vacuum cleaner.
—40—		
—30—	Faint	Quiet home or private office; average auditorium; quiet conversation.
—20—		
—10—	Very faint	Rustle of leaves; whisper; soundproof room.
—0—		

cooling, the temperatures in an enclosed area may build up to dangerous levels. In the same way, noise levels may become hazardous in an enclosed space. Both noise and heat may be contained within massive barriers.

Ideally, though, both noise and heat are best minimized at the source. As a last resort, a person can protect himself from heat by wearing heat-resistant clothing like gloves or asbestos suits; and from noise, by using ear plugs or similar devices.

Both the intensity (loudness) and frequency of a noise are important. Frequency analysis may provide effective clues for controlling or reducing a given noise hazard. The shrill higher frequencies, usually above a thousand cycles, are more annoying and more hazardous to hearing.

High and low frequency

The *high frequencies*, with their shorter wave lengths, are radiated directionally—that is, they tend to move in straight lines and to bounce back without bending from any reflecting surface. Their energy is low. Therefore, higher-frequency noise is less readily transmitted through solid objects, and its effects are more likely to be felt as direct radiation, or as a reflection of direct radiation. Because of its directional properties, and because acoustical materials absorb high frequencies more effectively than they do low frequencies, high-frequency noise is more readily controlled by placing barriers like acoustic panels, walls, and enclosures between the sources of the noise and the areas to be protected.

Low-frequency noise, on the other hand, is not at all directional; like water flowing into a container, it tends to adapt itself to fill all the available space. As noise frequency decreases, both the wave length and the energy content increase. Therefore, low-frequency noise is readily transmitted over long distances and through solid material, often to large surfaces capable of reradiating it. Low-frequency noise is best controlled by providing a discontinuity in the path of its transmission—often by means of vibration isolation with shock mounts or with cushioning material of comparatively high compliance or flexibility. (Special felts are made for this purpose.)

Resonance

Noise often is amplified significantly by the resonance of hollow objects, much as a violin sound box resonates to amplify weak signals from the strings. These resonance effects may be reduced somewhat by adjusting the resonant part to alter its frequency of vibration. This can be done by changing operating speeds, increasing or decreasing the effective mass of the vibrating part, or reducing the noise by treating the resonant part with some sort of damping—that is, viscous material

—that will rapidly absorb the sound energy. An example is the asphalt treatment of auto panels.

Reverberation

When noise is radiated into an enclosed space whose surfaces reflect sound, the sound waves ricochet many times before their energy is dissipated. This effect, called "reverberation," plays an important part in building up high noise levels in enclosed areas.

Noise disturbs

Annoyance, with its attendant stress, is a significant element in the noise problem. Generally, both the higher-frequency and the higher-intensity noises are most disturbing. Also, the spectrum, or frequency distribution, of noise is important. A noise that is largely in a single frequency—for example, the hum of a transformer or the whine of a circular saw—is generally considered more objectionable than a noise with a wider frequency range—such as the noise of punched-card processing machinery. By the same token, impact noises, with their high peak-to-average ratios, are more annoying than steady noise. Finally, the longer the duration of noise, the more disturbing it may seem.

The level of background sound also influences the amount of annoyance caused by an intruding noise. Higher background noise tends to mask the added noise and make it less objectionable. There's an element of habit, too: Noises we get used to are likely to be less disturbing than they were at the first exposure.

How to Control Noise

Here are six major ways to control noise:

1. *Dispersion of noise sources*—for instance, by scattering noisy machines to spread noise over a wider area.
2. *Elimination of the noise at its source*—for instance, by bolting down loose covers.
3. *Vibration isolation*—for instance, by using shock mounts.
4. *Absorption of direct noise radiation*—for instance, by using acoustical materials on walls and ceilings.
5. *Isolation of the source*—for instance, by enclosing a machine in a heavy, dense material.
6. *Individual protection*—by using ear plugs.

Unscrambling noise

With all these complicating factors, is it possible to find any order? Fortunately, yes. With proper measuring and analyzing instruments, the individual noise components may be unscrambled considerably, and major offenders may be isolated for corrective action.

A basic step in evaluating a noise hazard is to make careful measurements and analyses with proper instruments. An electrical engineer

would not attempt to measure voltage and current by placing moistened fingers into a live socket. By the same token, valid noise measurements cannot be made by ear alone.

Industrial noise is classified under three headings: 1) Steady narrow-band noise in which one frequency predominates, such as the whine of a circular saw. 2) Steady wide-band noise which includes many frequencies—such as the racket from a number of machines. 3) Transient or impact noises, which change rapidly in pitch or volume, or occur intermittently. Such noises may include single impacts from slow machines like drop-forge hammers, and repeated impacts from fast equipment like riveting machines and pneumatic hammers.

Measure hearing

Since noise is so largely a "people" problem, measurements of individual hearing are just as necessary as measurements of the noise itself. The basic instrument is the audiometer, which evaluates a hearer's response to sounds of varying frequency throughout the audible spectrum.

Any plant or department in which noise hazards exist should consider making careful audiometric examinations of *all* employees exposed to the noise. In many states, compensation commissions and courts hold an employer responsible for an employee's hearing loss unless the employer can prove that all or part of the hearing loss occurred before employment.

In noisy environments, exposed employees should be periodically re-examined so that those who show susceptibility can be transferred to quieter work. Unless test results are

HOW NOISE IS MEASURED

STEADY NOISE in industry is measured and evaluated easily and accurately by means of two instruments, the sound-level meter and the octave-band filter set. The sound-level meter (Fig. 1) measures over-all sound pressure at the microphone, and the octave-band

Fig. 1: A modern sound-level meter.

filter or the newer adjustable half-octave filter set (Fig. 2) provides a means of separating the over-all sound into its component frequency ranges.

Transient or intermittent noise is more difficult to evaluate, since its

peaks are far above the average levels read by standard sound-measuring instruments. In these cases, sound-level-meter and octave-band-analyzer readings may not indicate either the true annoyance or the hazard to individuals. Transient noise measurement requires equipment like a peak-reading indicator in conjunction with the sound-level meter.

One caution: These instruments are highly sensitive. It is generally advisable to check their calibration before and after readings.

A number of tricks of the trade will be helpful. The unit of measurement, the decibel, or db, is a logarithmic unit. It cannot be added arithmetically. For example, two noises, each of 60 db, will produce a total level of 63 db—not 120 db. A useful rule is that a 3-db change in noise represents either a doubling or halving of sound power. When noises are added, if one noise is 10 db or more above another, the lesser noise may be neglected for all practical purposes, since its contribution to over-all intensity is slight. To add noises of unequal value, a table of logarithms, a slide rule, or a decibel table is necessary.

Logarithmic addition and subtraction of noise levels are most often required to correct noise readings for the effects of background noise. To test for this condition, the offending noise source is turned off and the background level measured. This reading is compared with a reading obtained when the noise source is in operation. Obviously, the source being studied should be louder than the background noise.

It's advisable to take a number of readings throughout the area to be studied. The areas of loudest and/or most annoying noise should receive first attention. With the instruments already discussed, the sources, or areas, of loudest noise may be localized and the noise analyzed for clues to cause and cure.

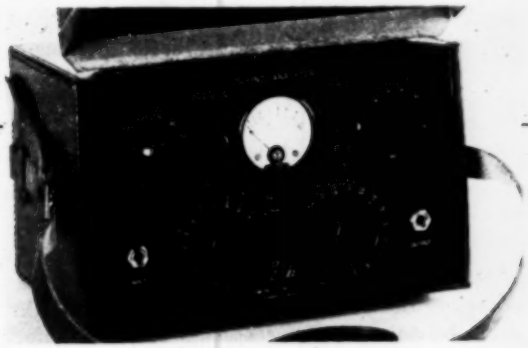


Fig. 2: Frequency-band analyzer, adjustable in half-octave steps.

down in black and white, compensation boards and courts are not likely to entertain management's opinion that a claimant's hearing was defective at the time he was hired.

NOISE CONTROL

How, specifically, can noise be controlled? As with heat, if noise cannot be reduced or eliminated at its source, it must be either absorbed or insulated; and if this is impractical, personal protection must be provided.

Dispersion of sources

In some cases, high noise concentrations in a given area can be reduced by dispersion of the major noise sources. Instead of concentrating noisy machines, it may be advisable to scatter them somewhat, to spread the somewhat reduced noise over a larger area.

Eliminating noise at its source

The best solution is to reduce or eliminate noise at its source. Though this often may not be practical, it is always worth a try. Replacing defective bearings or gears, bolting down loose covers, or replacing resonant sheet-metal covers with fiber ones may help. Better lubrication and maintenance will eliminate some noise. Sometimes—though not often—it may be practical to replace a machine or process with a quieter one. For example, welding is quieter than riveting; grinding is quieter than chipping.

Sometimes a process may be modified. For example, in a battery of punch presses, the punch faces may be slanted so that one edge enters the work first and a quieter shearing action results, rather than a single loud impact of all punch surfaces. Clamping the work or bracing machine members may help, as may replacing noisy metal gears with fiber or plastic gears.

Vibration isolation

Vibration isolation, by means of such devices as shock mounts or compliant cushioning material, provides a discontinuity in the solid path of transmitted vibration. Since usually only the lower frequencies are transmitted in this manner, vibration isolation is most helpful with low frequencies—for example, a shock mount for a punch press. Usually the more damaging and annoying high frequencies are radiated directly from the noise source.

Absorption

Absorbing direct radiation may help somewhat. Acoustical treatment of walls and ceiling will absorb some reflected noise, and thus will reduce reverberation in an enclosed area. Also, absorbent baffles may be hung from the ceiling to serve as additional blotters of noise energy. But since much of the noise is radiated directly, acoustical treatment is only a minor help to employees working near the noise sources.

As a rule, acoustical treatment of

room surfaces provides no more than about 10 db of quieting. This won't seem like much if it's an intolerable 120 db reduced to a merely impossible 110 db. Still, a 10-db decrease in noise means an actual noise reduction of 90 per cent—a significant accomplishment. Even 3 db, representing a 50 per cent decrease in noise, is a worth-while achievement.

Isolating the source

Partial or complete isolation of noise sources is often the only effective means of control. In some cases, an impervious barrier like a masonry wall can accomplish this. But if employees are expected to work *within* the enclosed area, adequate absorption must also be provided.

Another method of isolation is to enclose the machine alone. A tightly sealed enclosure is necessary, because sound may leak from small openings, like water gushing from a small puncture. Enclosures, covers, or partial barriers such as hoods or movable panels are more effective when they are constructed of combinations of materials, including relatively impervious barriers of heavy dense material like plaster board, and softer sound-absorbing material like perforated Celotex, which dissipates sound energy into infinitesimal heat energy.

Various combinations of these quieting methods may be helpful. In controlling a complex noise problem, for example, vibration isolation might be provided by shock mounting machines. Relatively small, noisy equipment may be completely enclosed, and heavy walls and doors may separate the noisy areas from

CHARACTERISTICS OF NOISE

If you're trying to reduce a noise, you must first know what it consists of. By taming even one element of it, you may make it less objectionable. Here are the major elements of noise:

1. Intensity, or loudness, is the degree of sound pressure.

2. Frequency is the number of cycles per second—which determines **pitch.** High-frequency sounds, like the whine of a buzz saw, move in straight lines. Low-frequency sounds can move around and through surfaces. Shrill (high-frequency) sounds are usually more annoying than equally loud sounds of lower frequency.

3. Resonance—amplification of sound by the surfaces that enclose it (like a violin sound box).

4. Reverberation—ricocheting of sound waves against a reflecting surface.

5. Duration and timing. The annoyance of noise is influenced by how long it goes on, whether it's sudden, whether it's steady or intermittent.

quieter ones. Partial barriers—for example, a movable wall panel, or acoustical baffles suspended from the ceiling—will break up direct radiation and absorb some noise. Also, acoustical treatment of the walls and ceilings and dispersion of noisy machinery will be helpful.

Ear protection

There are, unfortunately, some situations where little can be done to reduce major noises sufficiently: for example, noise from nearby jet aircraft, or from large drop forges. In such situations, ear plugs or similar protective devices should be provided.

It's not enough merely to provide ear protection—a vigorous educational and enforcement campaign is often necessary to make sure that it is used. The same employee who is most negligent about using ear plugs may be the first to file a claim for compensation if his hearing is affected.

Personal protection not only minimizes the risk of hearing damage; it may actually improve the reception of speech. In the presence of excessive noise, the human ear begins to "limit"—that is, it becomes overloaded just like the loudspeaker on your phonograph. Distortion products, then, are generated in the ear, and these inhibit understanding of speech even further.

The use of ear plugs can improve reception by bringing the over-all noise coming into the ear down to a level that does not cause distortion. Even though speech—instructions and the like—is also muffled, it becomes easier to hear because at least it is not distorted.

The supervisor can help

Noise hazards may be both dangerous and bothersome. Control may be costly, difficult, and imperfect. Specialized instruments are usually needed to measure and analyze noise and employees' hearing. Skilled and experienced specialists may be needed to help bring the problem within bounds.

But there is still a great deal a supervisor can do if he approaches the problem with some understanding of fundamentals and with a common-sense attitude toward control. Many of the corrective actions will not be expensive.

Vibration mounts, flexible couplings on pipes and drive shafts, replacement of rattling sheet-metal covers with fiber, bracing machine members—these are all comparatively small adjustments in construction that may represent noise "first aid." A change in working methods—such as clamping work, wearing personal ear protection, and even making sure of proper maintenance and lubrication—will help. If the noise is acceptable to some employees and unbearable or dangerous to others, the susceptible employees can be transferred to another department.

If all these don't add up to suf-

ficient improvement, it's time to suggest something more basic. The costs for equipment to measure a noise problem, plus the training of someone with engineering background to evaluate the problem, may be recouped many times over by avoiding a single expensive compensation award. If the problem does not justify the purchase of equipment, it may be feasible to hire a consultant for a day. He may be able to suggest a workable solution.

Noise is an insidious and progressive hazard. The danger of hearing loss to individuals, the large-scale financial risks to the company, the high cost of poor communications, excessive fatigue and irritability, all justify making a major effort to eliminate any noise that is avoidable. ♦

Insurance for Mental Illness

IS MENTAL HEALTH insurable? Group Health Insurance Inc. of New York is trying to find out. Aided by a grant from the National Institute of Mental Health, GHI has started a two-year experiment with a sample group of 75,000 insured people covered under their "family-doctor plan." The insured will, if they need it, receive short-term treatment of mental illness, including individual and group psychotherapy, shock treatments, psychological testing, and up to 30 days of hospital care.

GHI hopes to learn how much of this treatment will be needed by the insured group—in relation to their age, sex, marital status, medical history, occupation, income, and education. The data secured will, it is hoped, give some idea of the feasibility of broadening health insurance throughout the country to cover mental illness.

"Safe!"

TRAINING— HOW MAN

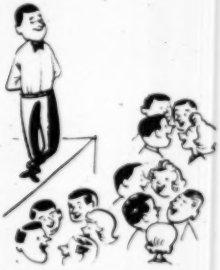
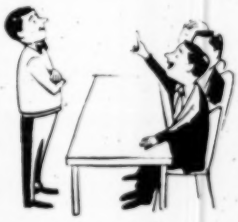
By Loui

Manager of Training-Syste

Training Method		What It Is	How It Works	When to Use
COACHING		Individual instruction.	Supervisor or instructor works with employees on job performance.	Orientation, basic follow-up, and spot training. Frequently used when group training not desirable.
CONFERENCE		Discussion of a problem common to a group. Solution reached by pooling group experience.	Training / conference leader serves as discussion guide.	For solving problems directly and indirectly related to group's work.
DEMONSTRATION		Showing and explaining how something is done, is used, or works.	Trainer goes through the motions or processes step by step.	To familiarize and fill in details, realistically, simply, and understandably.
DRILL		Teaching and learning through repetition.	Trainer sets up exercise or situation for individual or group to practice continuously until thoroughly learned.	After learner accepts reason for learning strictly, according to word phrasing or method.
EXERCISE		Written description of a problem to stimulate thinking on proper procedure.	Trainer provides trainee with exercises—later corrects and returns them for benefit of trainees.	For individual improvement or when classes or group techniques are not practicable.
GUIDED TOUR		Group visit to observe on-the-spot situation under special guidance.	Purpose of visit made clear beforehand. Guide explains particulars and answers questions.	For orientation and increasing understanding of actual conditions.
LECTURE		Talking to a group from previously prepared notes.	Trainer or specialist presents information on a given subject.	When few if any members of group are familiar with the subject.
PANEL DISCUSSION		One or more specialists present short talks on a given subject, followed by questions and discussion.	Trainer/moderator introduces specialists, later leads discussion period.	If the viewpoint of specialists will serve a direct training need.
QUIZ		Written or oral questions on performance of a job.	Trainer provides questions to individual or group.	To stimulate interest by pretesting. To determine knowledge of a subject. To find out the effectiveness of training.
ROLE PLAYING		A simulated situation involving trainees as participants in people's roles.	Situation is acted out—followed by discussion of how to handle problem.	Especially effective in solving human-relations problems.

METHODS DO YOU KNOW?

oodman
American World Airways

Training Method		What It Is	Special Advantages	Limitations and Pitfalls
ASSIGNED PROJECT		Trainer assigns one or more employees to a special task, finding the solution to a given problem, checking a procedure with a qualified employee, or reading.	Familiarization with actual on-the-job situation. First-hand experience. Individualized training. Helps in solving a special problem.	Requires clear briefing. Needs supervision. Follow-up vital. Not as effective with large groups.
BUZZ GROUPS		A larger group is split into several discussion groups followed by report from appointed chairman of each smaller group and summary by leader.	Individual expression. Pooling of many ideas. Develops leadership skills. Mixes experience with inexperience. Permits full participation.	Requires clear briefing. Ideas from various members must be organized by leader.
GROUP INTERVIEW		Interview is conducted by leader asking key questions of individuals in a small group —sometimes handled as training sessions in presence of others.	Brings together different sources of information. Stimulating effect of rivalry. Permits joining of ideas. Allows various opinions to be aired.	Can get sidetracked. Domination by one or few. Questions must be provocative.
EXHIBIT		Actual objects, specimens, models, mock-ups, graphic aids are placed on display with appropriate captions.	Orientation. Demonstration. Attractiveness. Homemade or professional. Publicity. Bulletin boards readily available.	Extra time to prepare. Requires special place. Can be expensive. Requires special display skill. Distracting if in constant view.

MANPOWER MANAGEMENT: THE CHALLENGE OF THE 1960's

By Charles A. Myers

Director, Industrial Relations Section
Massachusetts Institute of Technology

The manpower picture is changing. Here's a look ahead.

A LONG-RANGE THREAT for the American economy is not necessarily a shortage of jobs or work, but a shortage of manpower! This problem will obviously have far-reaching effects upon the supervisor.

The over-all forecast of the future economy is generally an optimistic one: Production has maintained an impressive postwar level and, it's safe to assume, will continue to grow at its current rate. Employment is now at a record high. And recent vast expenditures on industrial research should result in many more new products, new jobs, and even new industries.

But who will do the work? To find out, let's take a look at the labor force six years from now—in 1965.

Future manpower—and needs

Some of the manpower picture is already determined. As Peter Drucker pointed out in *America's Next Twenty Years,* "The major events that determine the future

have already happened—irrevocably. . . . Everyone who will join the workforce within the next 18 or 20 years has by now been born. . . . The economic population of the next 20 years (its numbers, age, and sex distribution) is not just predictable; *it is already in being.*"

Furthermore, in the postwar period, there has been a virtual population explosion: By the end of the thirties, we had 132.1 million people in the United States; by the end of the forties, 151.7 million; and now at the end of the fifties, nearly 180 million. The figure is expected to reach 193.3 million by 1965.

Yet even this enormous population growth is not enough to meet our economic needs—which are also explosive. If the economy continues to grow at its present rate (as it is likely to), our Gross National Product * will reach a staggering $650 million in 1965. For comparison, the Gross National Product in 1955 was $391 billion and required the services of about 63.2 million people. The volume six years from now will require a total labor force of some 74 million people—about 10 million more.

The hazards of predicting

Economic projections are notoriously hazardous. Even when we know the age composition of the population, we cannot predict with any accuracy the size of the labor force a decade ahead.

For example, a careful prediction made for the Social Science Research Council in 1948 underestimated by nearly 8 million the actual 1955 labor force (including servicemen and unemployed workers) of some 69 million people.

Why the disparity? Rates of both economic growth (which surged suddenly) and labor participation had been underestimated. When jobs became available, proportionately more men and women in the total population went to work than ever before!

The estimates in this article are on the conservative side; the labor force needed in 1965 may, then, be even larger than suggested.

Analysis by age group

On the basis of what we already know about the age composition of the population, who will hold the 74 million jobs? Somewhere, another 10.8 million workers must be found. Several points stand out from an analysis by age group of 1955 data and 1965 projections made by the U. S. Department of Labor:

- People born during the thirties will be between 26 and 35 years old in 1965—but the birth rate during the thirties was relatively low. As a result, there will be no substantial increase of young adults by 1965, and there will be a relative shortage of workers in this age bracket.

* Total national production, as measured by the payments made for the goods and services produced.

• There was a sharp increase in births during the forties, largely because of the war. As a result, in 1965 there will be more young people aged 14 to 24 than there were in 1955. Many will be at schools or colleges. Even so, nearly 4.5 million more young people will be in the labor force in 1965 than in 1955.

• The 1965 labor force will show another large increase—in the age groups of 45 and over, especially in the range between 45 and 54. More people over 45 will become—or continue to be—employed.

• Some 4 million new employees will come from the ranks of women over 35. Probably many will be married and over 44, the age when children are no longer as important a factor in keeping women at home.

Occupational trends

In what occupational categories will the 74 million people be grouped? If past trends continue, some occupational groups will grow; others will shrink. The U. S. Department of Labor has predicted the changes shown in the chart below.

The table predicts two trends worth noting:

First, the need for *unskilled* labor will probably be reduced by continued technological change, especially automation. In short, many more functions of basic labor will be performed by machines—or eliminated altogether by improved methods. For instance, many farm workers will be released for industrial work because of agricultural automation and a resulting increase in farm productivity.

The second trend: The need for technical and managerial skills will be greater.

One reason is that automation, while eliminating much direct labor, will enlarge the need for supervision, programing, and maintenance of newly equipped operations. Hence, the anticipated 37 per cent

CHANGES IN OCCUPATIONAL GROUPS

Group	Predicted Change 1955-1965 (in per cent)
Professional, technical	+37
Proprietors, managers	+22
Clerical, sales	+27
Craftsmen (skilled)	+24
Operatives (semiskilled)	+22
Service workers	+12
Laborers	— 3
Farmers, farm workers	—15

increase in professional and technical personnel and the 22 per cent rise in managers.

Furthermore, the growth of large American companies has generally, in the recent past, increased managerial, technical, and supervisory personnel, not only in number, but also in importance. Historically, it seems that as an organization grows, so do the influence and responsibility of its managers.

The increase in employment will occur in other areas besides manufacturing, where it has been greatest during the past decade. Projections to 1965 and 1975, based on the trends between 1947 and 1956, suggest that, while employment may rise by 10 or 20 per cent in manufacturing, its growth will be still greater in construction, trade, finance (including insurance and real estate), service industries, and government. And, of course, employment of technicians, managers, and administrators will grow proportionately in each expanding category.

What, exactly, does all this mean to the supervisor? Some implications have already been suggested. But now let's consider some specific factors that will affect decisions on the use of manpower during the next six years:

More white collars

The workforce will be better educated than ever before—more high-school and college graduates will be available. These may, in fact, be just the groups to answer the increased demand for professional and technical personnel and for clerical and sales employees—the occupational groups slated for greatest expansion.

In brief, there will be more candidates for white-collar jobs. And automation should complement the trend by increasing the demand for white-collar employees. However, even in a highly automatic operation, some routine, physical labor may be needed.

Employee development

By 1965, there will be shortages of male workers in the prime age groups—between 25 and 45. This is no wild guess; it is based on the number of people in those future age groups who have already been born. For example, in 1965, there will actually be 700,000 fewer men aged 25-35 than there were in 1955.

Such shortages will place a great premium upon the better selection, placement, and training of workers, especially if a company wants to minimize labor turnover. Since it will be easy for dissatisfied employees in the scarce age groups to change jobs, management must pay great attention to placing and supervising them properly from the start.

These expected shortages call for even more immediate action, however: Supervisors must pay particular attention today to developing

Trends in Supervision—1965

1. Managers will supervise more white-collar workers.
2. The workforce will be better educated.
3. Because of the shortage of men in the prime age groups (25-45), there will be a need for better selection, placement, and training.
4. Supervisors will have to develop younger workers, older married women, people 60 and over, and minority groups.
5. Automation will relieve clerical shortages, and will bring a need for more skilled workers.
6. The supervisor will have to make work more interesting, to retain valuable employees.
7. More managers will be needed.

and retaining employees who, by 1965, will be between 25 and 34 years old. Many of these young workers can be expected to become key people in whatever organization they work for—young professionals, skilled craftsmen, supervisors, and junior executives.

New groups of workers

Relative shortages of male workers in the prime age groups will put a premium on the more effective use of other potential employees. These include, as we have seen, younger workers and older married women. There are also two more important groups that offer great promise and ability—racial minorities (who sometimes have difficulty now in obtaining higher-rated jobs) and people 60 or over (who sometimes have difficulty in finding any work at all). To overlook people who are capable, able, and willing to work may, by 1965, be a luxury that the economy can ill afford.

Automation

Automation will not pose a serious threat to employment, even if its first temporary effect may be to eliminate jobs.

For one thing, the real impact of automation will probably not come before the onset of manpower shortages. Thus, automation should merely replace, not displace, workers.

For another thing, all the new young workers who will join the labor force cannot be relied upon as permanent additions. Most young women, for example, will work only until they marry. Overdemand and undersupply of young women office workers may result in a chronic

shortage of clerical help. In anticipation of this, some insurance companies are introducing office automation now, in an effort to avoid future clerical shortages.

Job enlargement

Some restructuring of jobs may also be necessary in order to make work more convenient and more interesting, and thus to retain employees.

Consider the employer who seeks young workers under 24 and married women over 35. Many of the job candidates couldn't, or wouldn't want to, work a full day. As a result, the employer may be forced to restructure his jobs; it may be necessary to introduce part-time shifts.

Many jobs may need to be enlarged, to improve the employee's interest, productivity, and morale. Automation may play a helpful role here by eliminating many of today's dull, overspecialized tasks. But supervisors too must contribute by recognizing that a man needs a job that will challenge and interest him.

The need for leaders

All managers will have to show greater and better leadership. A labor force that has increasingly learned democratic values will not be satisfied with autocracy.

Companies that want to hold their current labor force will place renewed emphasis upon proper supervision. *Good* managers will continue to be the scarcest of our human resources, and personnel administration as a supervisory responsibility (with the advice and assistance of a staff specialist) will continue to be crucially important.

Prepare for the challenge

The job that management must perform in administering manpower between now and 1965 is going to be more difficult than it has been in the recent past. And Department of Labor projections of the picture in 1975 indicate that, while the composition of the labor force will be different then, many of the pressures upon management will remain.

An increasing number of companies are preparing for the challenge by improving the training and development of their supervisory ranks. Supervisors, too, must prepare to meet it by developing themselves and their promising subordinates. ♦

THE ART OF PROGRESS is to preserve order amid change and to preserve change amid order.

—ALFRED N. WHITEHEAD

LET'S GET DOWN TO CASES

Every month, SM presents true stories of tough situations supervisors have faced. The core of each story is an unsolved problem.

How would you handle it? Your answer and the steps you take in arriving at it can be of the utmost value to you.

If you consider the cases by yourself, it might be worth while to jot down your questions, your reasoning, your decisions.

Or, discuss one or more cases with a group of people—fellow supervisors, family, or friends. You'll find that each person has his own way of looking at the problem.

The Troublemakers

"I WANT A RAISE, Mr. McAllister, or I'm going to quit."

That was what Jennie Price told her boss, Matt McAllister. She had received a raise 11 months earlier and now wasn't quite sure she'd get another. She had brooded about it, finally became anxious, and stormed into her supervisor's office to deliver her ultimatum.

"Don't hand *me* any ultimatums," Matt snapped back. "If you want to put it in terms of raise or resignations, all I can say is—goodbye."

Then he began to calm down.

"Look, Jennie, I agree that you deserve a raise at the end of the year," he said. "Your work has been good and we like you. I fully expect to recommend a raise at the proper time. But I cannot—and will not—guarantee that you'll get it. That decision rests with the departmental committee.

"Meanwhile," he continued, "why not think things over? There's no need to quit."

Jennie withdrew her ultimatum.

A few weeks later, Matt put through his recommendation, and she got the raise. Matt made a mental note that he had learned how to cope with an ultimatum.

Then McAllister was promoted to a higher job in another section of his company's financial division. Since he'd been with the firm a long time, he already knew many of the people he'd be supervising. And he foresaw recurrences of the same problem—"Give me what I want or I'll quit."

He was thinking specifically of three clerks in his new section who were old-timers—all married women who had been with the company at least 15 years. They knew their work forward and backward, seldom made errors, and could be relied on to help break in new clerks. In an emergency, they were real Rocks of Gibraltar; they'd work all night, if necessary.

Yet these same women had also become ringleaders in office politics. They talked things over among themselves. They determined privately what to do about their gripes and dislikes. Then, they'd announce their intentions to other clerks—"Stand by and watch the fireworks." After that, it was a matter of gradually pressuring the boss. When they had him sufficiently intimidated or confused, they'd assert their demands and threaten to walk out unless they were satisfied.

Several times recently, they had issued ultimatums to McAllister's predecessor. For example, they decided they didn't like one of the new clerks. They told others in the department that they were going to "get rid of her—or else." Then they conducted a subtle campaign of pointing out the new girl's errors, of complaining that her mistakes slowed everybody down. They urged their boss to transfer the new girl.

When he resisted, they needled her until she was provoked into a bitter argument. With that excuse, the three women went to the supervisor's office and put it up to him: "Get rid of her—or us." They won their point and returned to work, satisfied. To all intents and purposes, *they* appeared to be running the department.

* * *

"What I'm going to do," McAllister told his new boss, "is call each of those girls into my office alone. Then I'll tell her several things: I like your work and know you have a long and excellent record. But I don't want any misunderstandings. I want you to know now—*before* you go out on a limb—that if you ever give me an 'or-else' demand, I'll take you up on it. Anyone who says to me, 'Give me what I want or I'll quit' is as good as out! Now, if you don't like this, you'd better start looking for another job."

"But," Matt's boss objected. "You'd be inviting them to quit."

"Oh, it's just a stratagem," McAllister explained. "It worked fine

when I tried it with Jennie Price."

His boss looked worried. "If you do this *before* anything actually happens, these women will assume that their jobs are in serious danger."

"But I *know* them," McAllister countered. "They'll be a real pain in the neck unless I show 'em who's boss from the start. Don't forget, I know the score. I've watched them get away with murder."

"But each of them belongs to our 15-year club," his boss persisted. "They have thorough experience, and they know every angle of your operation. It would be mighty hard to get along without them."

"Oh, these women won't quit—they've got it better here than they could get anywhere else, and they know it," McAllister said. "At the very worst, *one* of them might resign. But I'd still have the other two, and *they'd* be properly oriented. The department, in the long run, would be better off."

"You may be sold on the notion for the moment," his boss replied. "And it's even barely possible that you could get away with it. But here's another serious question. How do you think others in the department—as well as these three women—will feel about a supervisor who resorts to threats before anything has happened?"

Consider these questions—and ask your own:

1. What's the principal difference between the first case in which Matt was successful and the action he's considering now?

   _____

2. Why do you feel the three senior clerks were able, as Matt put it, to "get away with murder"? _____

   _____

3. Do you agree with Matt that just *one* of the three clerks might resign? _____ Yes _____ No. What likelihood is there that all three would quit in a body? _____ If so, what further repercussions might this cause? _____

   _____

4. An employee does, after all, have the right to quit. Discuss the implications of this for supervision. _____

   _____

   _____

5. Matt is trying to plan ahead—deal with an emergency before

it happens. In his shoes, how would you plan ahead for this particular situation?

_____ Do just what Matt is planning to do. (Why or why not?) _____

_____

_____ Deal with demands only as they come up. (Why or why not?) _____

_____

_____ Deal with rumors and pressures brought to your attention, before they get to the level of demands. (Why or why not?) _____

_____

_____ Try to improve the climate of the department so that unreasonable demands become less probable. (If so, how?) _____

_____

_____ Try to strengthen the interest and participation of other clerks, within practical limits, so that these three women don't have the field to themselves. (If so, how?)

_____

Or what would you do? _____

_____

How Would You Solve This Case?

If you've discussed this case at the plant or at home, or if you've done some thinking about it—what did you come up with? We'd like to know your ideas and comments. Send them to Let's Get Down to Cases, Supervisory Management, 1515 Broadway, New York 36, N. Y.

YOUR *Personal* MANAGEMENT

Children don't have to have accidents

Teach them good safety habits—early.

IF YOU HAVE three children, the odds are that at least one of them will be hurt in an accident this year. In the United States, 16,000,000 young people are injured in accidents every year—and many of these accidents could have been avoided.

While modern medicine has greatly reduced the number of deaths from illness of young people up to 15 years old, the death rate from accidents is still high—about 15,000 a year. And nonfatal accidents maim many children for life.

Why are so many young people injured in accidents? Perhaps because people simply don't think enough or know enough about the kinds of accidents children have, and at what times during their lives these accidents are likely to occur. Here are some facts that will give parents clues to the hazards to watch for and points to stress in their children's safety education.

Fatal accidents

Among infants under a year old, suffocation and choking are the most frequently reported fatal accidents. However, doctors now believe that in many of these instances, the child has really died

from some rapid, overwhelming infection—not from lack of air. Fire is also a leading cause of infant deaths.

In the 1-to-4-year-old group, motor vehicles are the chief killers. In most of these deaths, children are run over or struck in streets or driveways. Fire also causes many deaths in this age group—chiefly among children trapped in homes or other buildings. Drowning is the third most frequent cause of death—especially for 1-year-olds who are playing alone. Drownings occur most often at or near home—in fish ponds, wells, cisterns, rivers, reservoirs, lakes, creeks, and brooks.

Poison is more dangerous for 1- to 4-year-olds than for children of any other age; it kills about 370 each year. Three quarters of these poisonings occur between ages 1 and 2.

In the 5-to-9-year-old group, most accidental deaths are caused by motor vehicles; again, most of the children are run over or struck by, rather than riding in, the vehicle.

Drownings rank as the number-two killer of 5-to-9-year-olds—followed by fire and explosions.

Among children of 10 to 14, motor vehicles still lead as a cause of deaths—but in this age group, the fatal accidents tend to occur to children who are passengers in vehicles.

Drownings cause about one quarter of the accidental deaths in this group. Firearms rank next—and most of these accidents happen to boys, as the result of inexperienced and unsupervised handling of guns.

Nonfatal accidents

Home is the scene of more than half of the nonfatal accidental injuries (and more than one third of the fatal ones) among children under 15. As children grow older, places of recreation and highways become the scenes of more accidental injuries.

Falls cause a large number of injuries in the 1-to-4 age group. Toys and playground equipment are also responsible for a great many injuries. When a child enters school, he may be injured in sports and recreational activities.

Cuts are the most common type of injury for children between 1 and 9. In the older age groups, fractures, sprains, and strains make up most of the injuries.

Hazards in the home

Many accidents involving children are preventable, if parents and others who supervise children will take safety measures, particularly at home.

One of the most effective ways to

This article was adapted from *Accidents and Children*, published by the Children's Bureau, Social Security Administration, U. S. Department of Health, Education, and Welfare, Washington 25, D. C. Single copies are available from the Children's Bureau free, on request.

prevent accidents is for a responsible person always to be present in a house where there are young children. Parents are often tempted to visit a neighbor or go to a nearby store while their young children are asleep; it's better—and safer—to wait until the children are awake and take them along, even if it has to be at night. Young parents who can't afford sitters often arrange to have neighbors help out, and then sit for their neighbors' children in return.

Some general rules

Other good ground rules are:

► Keep young children away from thin plastic garment bags. The thin film, which can stick to a child's face, has caused many children to suffocate.

► Keep at least one fire extinguisher in a prominent place, and have it charged once a year.

► Never leave a young child alone in a room with a lighted stove, or a lamp using coal oil or gasoline. In rooms where kerosene, gasoline, or coal-burning stoves are used, see that the stove has a flue for disposal of burnt gases.

► Keep matches in metal containers, out of children's reach.

► Have stoves and chimneys regularly inspected, and other heating equipment properly installed and cared for. Be sure that gas fixtures don't leak; one way is to use metal pipe connections, not flexible tubing.

► Buy only electrical equipment that carries the approval tag of the Underwriters' Laboratories, and replace the cords as soon as they are worn. An unused electric outlet within a child's reach should be taped, or plugged with special appliances available for that purpose.

Chief causes of children's accidents

► Destroy or remove as soon as possible all cloths and papers used in cleaning with oil or wax. They can catch fire by themselves.

► Keep your stairs free of any objects, to prevent trips and falls.

► Make sure that any gun you may have is unloaded and out of the children's reach. Lock ammunition in a container or closet.

► Each year check screens—especially on high windows—to make sure that the wire is not rusted, and that the screens are fastened securely.

► While children are young, it's safer to set the table with mats rather than tablecloths that hang over the edge. A toddler may easily pull a pot of hot coffee or a bowl of soup down on himself.

► Never store dangerous or poisonous substances in empty food or beverage containers—children are frequently poisoned by eating or drinking from such containers. Keep on high shelves or in a locked cupboard such chemicals as bleaches, lye, garden sprays, rat bait, coal oil, insect powders and sprays, ammonia, permanent-wave solution, turpentine, moth balls and crystals, cleaning solutions, and furniture polish.

In the living room

Always place a fire screen in front of the fireplace when it's in use, and never leave a young child alone in a room with an open fire.

If you have Venetian blinds, cut open the loop at the end of the cord with which the blinds are raised and lowered. That will eliminate any chance of a child's getting his head caught in the loop end of the cord.

In the bathroom

In a house with young children, keep no drugs of any kind in an unlocked bathroom cabinet that is within their reach. If you use flavored aspirin or other medicine made especially for children, be especially sure that this is stored out of their reach. Many children eat these pills as they would candy. Never call medicine "candy"; and teach children from the start that it is to be taken only as needed—and as given by you.

When you give medicine, read the label and instructions *beforehand;* never give medicine from an unlabeled bottle. Before you measure a liquid medicine, shake the bottle thoroughly. Never reach for medicine in the dark; you may pick up the wrong bottle.

Old medicine bottles should be emptied before they are put in the trash. If any medicine needs to be kept in a refrigerator, keep it as high and as far back as possible.

A portable electric heater—or any other electrical appliance—should never be used in the bathroom. Particularly avoid any appli-

ance that could come in contact with a child. An adult should always be present when a small child is in the bathtub—to prevent scalding or drowning.

Parents should keep a first-aid kit handy, and should check regularly to see that it is fully supplied and ready for emergencies.

In the kitchen

Keep knives, ice picks, and other sharp or pointed utensils out of children's reach. Turn handles of pans on the stove away from the front of the stove, so that children can't pull them over.

If you remove the contents from the refrigerator or freezer for defrosting or cleaning, be sure that no child can take this opportunity to climb into it.

In a child's room

Choose toys not only with a child's age, interest, mental, and physical ability in mind, but also for their safety.

Check carefully on playthings, especially those a child takes to bed with him. Button-type eyes on stuffed animals or buttons on doll clothes, if they're not firmly sewed, are likely to go into a child's mouth. So are wheels that come loose from tiny metal cars and trucks—not to mention a whole toy, small enough to be swallowed.

Small children sometimes chew on painted surfaces or put pickings from blistered or dried paint into their mouths. Parents should make sure that any paint on toys, walls, woodwork, or furniture in the child's room contains less than 1 per cent lead. Most furniture and toys that have their original coatings are safe, because manufacturers are usually careful. But in any repaintings of the child's room, furniture, or toys, use only a paint that has this marking on the label: "Conforms to American Standard Z66.1—1955 for use on surfaces which might be chewed."

In the yard

While your child is under 4, a temporary fence will probably keep him out of the street, out of a neighbor's pool, and out of the way of dogs. (But don't take our word for this—your child may be stronger or smarter than the average!)

Always check to make sure no child is in the driveway when a car is being backed out.

Teach your child to put away bicycles, skates, and other toys that might cause falls.

Keep the garage locked—or else keep it free of tools, equipment, or

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products dangerous to children, such as lawnmower, saw, cans of paint, poisonous sprays.

Take the door off a refrigerator that is discarded, to prevent children's being trapped in it.

String clotheslines so high that children cannot run into them. A rope or wire can cause serious injuries.

If you have a swimming pool, be sure that it is securely covered or fenced in so that children cannot get into it. They should never play in the pool without adult supervision. Even a wading pool can be a hazard to young children.

Teach your child not to taste unidentified berries, wild mushrooms, fruit, or roots of plants that "look good to eat." They may be poisonous.

Remove nails, splinters, and rough edges from boxes or boards that children play with.

If you provide simple, strong play equipment, children can have safe practice in sliding, swinging, climbing, and balancing.

On the highway

Teach children to cross streets only at crosswalks and with the traffic light. When you are about to cross a street with your child, remind him to look in both directions, and teach him to walk, not run, in crossing the street.

Teach children never to run between parked cars, and never to get out of an automobile on the street side.

They should never ride two on a bicycle nor catch rides on the rear of a truck.

If a child is 3 or over, he should know his full name and the names of his parents. As soon as he's old enough, he should learn to spell these names and to memorize his address and telephone number.

In automobiles

The right front seat of a car is the most dangerous. If young children are to ride in it, special provision should be made for their safety. A very young child can sit in a special child's seat, attached to the back of the larger seat, and he should be securely strapped into it. A child of 3 or over should wear a safety belt. (If he has a firm cushion that raises him enough to see out the window, he will get used to not moving around.) An adult hold-

ing a child in the right front seat should wear a safety belt.

The back seat is relatively safe, in comparison with the front seat—but only if the doors are locked. The doors of a four-door car can be equipped with special devices that keep children from opening them. This is better than removing the inside door handles from rear doors—for then an accident could trap occupants in the back.

Many parents prefer a two-door car while their children are young.

Rules against a child's standing while the car is in motion—or against sticking his arms or head out of car windows—are hard to enforce, but a wise precaution. Naturally, a baby or young child should never be left alone in a parked car.

Matches

A good way to keep children from setting fires accidentally is to let them use matches *under supervision*. Fire is fascinating to a child—either watching it or making it. He'll try to get matches by hook or crook—and it's safer if he knows how to handle them. Teach your child how to make sure that a match is out—and explain to him the danger of fire.

Teach good safety habits

An accident doesn't just happen. There's always a cause. Good safety habits will eliminate many of these causes. Parents must begin early to teach children good habits. As soon as they begin to be aware of the world around them, they're ready to begin to learn caution and thoughtfulness.

Practice what you preach

Parents must practice what they teach. "Don't do as I do—do as I say," is not a very effective teaching device for any age.

Teaching safe practices takes time. But to many children, safety education may mean the difference between life and death.

Don't overprotect

When a baby is very young, he must rely on his parents for protection. But as he gets a little older, he must begin to learn to protect himself. To guard his every move after he graduates from the crib and playpen will often make him uncertain and timid. It will also deprive him of experience that he needs for his development.

The child who has sound safety education, who is taught skills and abilities that will encourage self-confidence in the face of the unexpected, is better fitted to meet emergencies and avoid hazards when he's old enough to venture outside the family circle. And parents will feel easier about letting him go. ♦

SILENCE is not always tact, and it is tact that is golden—not silence.
—SAMUEL BUTLER

Digests of the month

Safety Enforcement—with a Difference

THE WAY YOU HANDLE a safety violation can have a lot to do with keeping accidents in your department down to a minimum. Poor handling of a violation may make an employee resentful about the need for obeying safety rules, and this attitude may spread to other employees. Any safety violation should be considered an opportunity to bring home the importance of accident prevention to the employee involved. To make the most of this opportunity, you should be fair, thorough, and accurate. Here is a review of some basic guides:

1. *Investigate thoroughly.* Frequently a supervisor's charge in a safety-discipline case breaks down because it is based on inadequate investigation. The supervisor may assume he knows what happened and decide to cut corners to save time. He may use the "once-over-lightly" treatment to hold down the costs of fact finding and clerical work. Whatever the reason, failure to have all the facts you need to prove a case may lead to an unfair charge.

2. *Hear the employee's story.* Never act before you have given the employee a chance to explain his offense. His account of what happened, even though it may be slanted in his own favor, may throw important light on the incident.

3. *Make the penalty fit the offense.* Don't be too severe or too lenient. Never use a violation of a safety rule as a means to punish an employee for a past offense you had let go because you couldn't prove it.

4. *Check the employee's past record.* The employee whose record is accident free deserves more consideration than one whose past actions show he is careless and accident prone. Experience, familiarity with the job, and extent of training are always factors you must consider in safety discipline. However, be sure to submit the employee's past record as justification of severe discipline for an offense that might normally call for a routine penalty.

5. *Word your charge correctly.* Your charge against an employee for a safety violation must be concisely and plainly stated. The accused employee must understand the exact nature of his safety violation. If you think he is guilty of several offenses, each should be separately specified in your notice to him. Vagueness in your charge will often defeat your efforts to apply discipline properly. When you write your charge, make sure the

date, time, and place of the offense and the circumstances surrounding it are included.

6. *Keep your head.* Don't lose your temper in a hearing, even if you're heckled by hostile witnesses. Keep your mind fixed on the provable facts your investigation has revealed and stick to them.

7. *Make your discipline positive.* You don't discipline an employee to punish him, but to help him improve. If you can help an employee understand that safety rules are written for his protection, you will secure his cooperation and make safety regulations a practical guide to sensible working habits. That's why you should move promptly when you see an employee violating a safety rule. Review it with him and explain its purpose. In the interview, you may discover that he needs special safety training you have neglected to give him.

• THE PERSONNEL MANAGER
(The Pennsylvania Railroad Company)
No. 26

More Meat and Less Potatoes

THE BUYING HABITS of the hourly wage earner, once markedly different from those of his salaried, white-collar counterpart, today are almost indistinguishable from them.

This transformation of American workers from people living at subsistence levels to full-fledged consumer citizens of our market economy is traced in a report, "How American Buying Habits Change," released recently by the Labor Department. It details the shift in the buying habits of the hourly wage earner over the last half century. The report is based on government surveys, first instituted 71 years ago by the U.S. Commissioner of Labor, on how people live—what food they eat, what clothes they wear, what kinds of dwellings they live in, what they spend on recreation and transportation.

At the turn of the century, the Labor-Department report shows, American wage earners were not much of a market for the products of America's economy. Most of their income was spent on essentials—food, basic clothing, and shelter. There wasn't much left over for anything else. A chasm divided them in their style of living—in clothes as well as living quarters—not only from the wealthy but also from the salaried and self-employed group.

Most worked long hours at little pay, and only infrequently enjoyed steady, year-round work. Federal surveys of family expenditures at the time found that about half of the typical worker's family income went for food, a fourth for rent. After other necessities came out of the remaining fourth of a week's pay, very little was left over for leisure-time activities or purchases—which are now taken for granted.

The buying power of wages earned by the average worker today is roughly three times as great as it was 50 years ago, even allowing for higher prices. These gains came from the productivity of the U.S. economy. The American worker now turns out

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three times as much work in a 40-hour week as his grandfather did in a 70-hour week.

The Labor Department offers some statistics on the worker's buying habits that graphically depict the progress that has been made.

Today's worker spends proportionately less of his income on necessities than did his father or grandfather. In 1875, according to the Labor Department, the wage earner spent 6 cents of each dollar on nonessentials or "sundries." In 1950, he spent 43 cents on such items.

In addition, a worker today gets more for his money. For example, the 31 cents of each dollar spent on food in the 1950's buys more food—and a better balanced diet—than the 43 cents per dollar spent in 1901. Apparel is more smartly styled and more functional than clothing 50 years ago.

Transportation accounts for the most radical change in the worker's buying habits. Half a century ago, none but the rich commanded private transportation; today most workers take car ownership for granted.

Another indication of the worker's new status is the roof over his head. In 1901, a federal survey found that only 19 per cent of a representative sample of 25,440 worker families in "principal industrial centers" owned their own homes. Today, over half of U.S. workers own homes.

And this isn't the whole story. Much of the increased purchasing power of American workers has gone into making the home more comfortable. Gas or electric stoves have replaced coal or wood-burning units. Running water—a rarity and luxury in workers' homes 50 years ago—makes possible the use of washing machines. Refrigerators, vacuum cleaners, electric sewing machines, and other household appliances make housework easier for workers' wives.

The switch from the old-fashioned over-the-arm market basket to the supermarket shopping cart is symbolic of the great change that has occurred in the food-buying habits of most Americans in the past 50 years. People today buy more food—in both bulk and variety—and grow very little of it themselves. The U.S. Agriculture Department estimates that well over half the vegetables consumed in 1909, excluding potatoes, were home grown.

The change in food consumption is most marked among workers' families. Their buying is no longer at subsistence levels. In the early 1900's a chief staple of the worker's diet was the potato. "It was not unusual," notes the Labor-Department report, "to serve potatoes regularly for breakfast as well as lunch and dinner." Today's shopping cart will contain more leafy and yellow vegetables, fruit juices, and "fresh" vegetables and fruits in frozen form.

Milk and dairy-product consumption has increased greatly over the last 50 years. A wider variety of meat is available throughout the year—at prices a worker can afford to pay.

Another measure of the improved condition of the American worker is the amount of money he spends on medical care. In 1901 he could afford to spend only 2.7 per cent of his income for "sickness and death." In 1950, the worker devoted 5.1 per cent to medical care, excluding items like funeral expenses. Workers' families in 1950 were spending roughly four times as much for medical care as in 1900, in dollars of equivalent purchasing power. And each dollar bought better care.

Topping off all the advances in his material well-being, today's work-

er has a lot more time to enjoy the fruits of his labor. The shorter workweek and vacations and holidays combine to give him leisure undreamed of at the turn of the century. Then, the ten-hour day and six-day week were not uncommon.

Along with the rise in free time, workers' expenditures for recreation, education, and reading increased. In 1901, families allotted, on the average, 2.7 per cent of their expenditures to these activities. The ratio increased to 3.7 per cent in 1917-19. In the mid-1930's, despite the depression, it rose to 4.1 per cent. Today the proportion is well over 5.8 per cent.

What about the future? Most experts believe that the trends of the last 50 years will continue to accelerate over the next few decades. According to the Labor Department, the separate identity of the "working class" in this country is fading away.

• BUSINESS WEEK
No. 1558

Skilled Workers Are Needed

THERE SEEMS to be a smug assumption going the rounds that automation, electronic data processing, and other manifestations of technological progress are eliminating the need for the skilled craftsman. Nothing could be further from the truth. The skilled worker has always been the pivot on which every industrial operation turns, and advancing technology, far from reducing the need for his services, actually increases it.

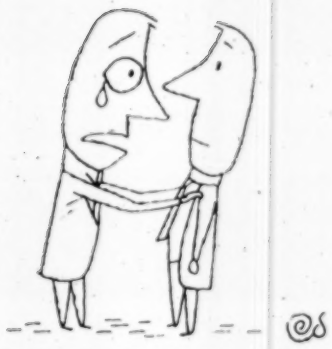
It is true that mechanization makes it possible for semiskilled workers to produce on an enormous scale—but their contribution is merely the end product of a process that begins with the craftsmen who design and make the tools and originate the models and patterns. The semiskilled workers who apply the patterns and operate the tools and machinery could not function at all without the highly developed skills of the craftsmen.

Every type of industrial activity, whether it be a clothing factory or an automobile plant, a steel mill or a job shop, is dependent upon this "transfer of skill." Without the skilled few, the process would grind to a halt, and the entire structure of modern industry would collapse.

Yet, today, this group—upon whom, to a large degree, our industrial future depends—is shrinking at an alarming rate. Its older members are dying off and not nearly enough young men are being trained to replace them. If American industry does not take steps to reverse this trend, its impact upon our entire social, political, and economic structure will be little short of disastrous.

—LOUIS RUTHENBURG
in "The Crisis in Apprentice Training"
Personnel, July-August, 1959

The Art of Saying "No"



SAYING "NO" is a vital part of a manager's job, and it isn't easy. If you turn down a request or suggestion too brusquely, you may weaken morale and stir up ill will. On the other hand, lack of firmness and directness in saying "no" can be equally damaging.

Here are some ways you can avoid the two extremes and make your "no" both firm and palatable.

1. Prepare the way.

Your men should know that you want to listen to their ideas, even though you obviously can't approve them all. If you fail to make this willingness clear, or if you don't emphasize it often enough, they may assume that you really don't want to hear what they have to say. It's a good idea to ask periodically for suggestions and requests. But you should also make clear that any new idea, proposal, or request must be judged realistically.

2. Keep hopes reasonable.

Even without specific encouragement, people have a way of building up their own hopes, especially when the odds against their ideas haven't been made clear to them. The bigger the build-up, the harder the letdown. Complete frankness from the start is kinder.

This is particularly true with hiring and promoting. It's usually unwise to let a man think he's sure to get a job or promotion until the decision has actually been made. Sometimes the manager's enthusiasm for an applicant will cool as more information about him comes in. But the applicant or candidate may feel that the manager implied a promise that the job would be his. Whether the promise is actually made or only surmised, the effect is the same: The turndown comes as a shock and tends to be viewed as an injustice.

Keep applicants posted frequently on where they stand, even if you can only tell them that there's been no further progress toward a decision. Most important: Let people know promptly when they've been dropped from consideration.

3. Promise a decision by a specific time.

When you commit yourself to a deadline for your decision, you're putting three important points across:

First, that the request hasn't simply gone in one ear and out the other.

Second, that the idea will be given active consideration.

Third, and most important, that you respect your employees too much to keep them on the hook indefinitely.

Pinning yourself down to a specific deadline can remove much of the mistrust and apprehension that normally builds up when an employee fears

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that he won't get a square deal. Even if the decision goes against him, he's more likely to accept it gracefully if he's seen this evidence of fairness and consideration.

4. Consider proposals seriously.

An employee needs no special sensitivity to notice signs of a lack of interest, haste, or a shallow grasp of the issues when his supervisor announces a decision. Make sure you've really tried to see the merits in every employee request.

This policy can pay unexpected dividends. Many a seemingly impossible idea has at least some merit when it's examined closely. Sometimes an unreasonable request contains a clue to something that's wrong with a particular operation. Or it may suggest another, better solution than the one the employee advanced.

5. Be direct.

Instead of building up unnecessary suspense, begin by telling the employee what he's most interested in hearing. A quick "no" is easier to take than one that is drawn out and prefaced by a lot of explanation.

Having stated your decision, indicate briefly why you made it. Present the facts as you see them, making sure to tick off both the pros and the cons. Presenting only the disadvantages can be taken as a sign that you weren't aware of the advantages.

In explaining your decision, remember to be specific. Nothing is more frustrating to a disappointed employee than a lot of generalities. Even if they're valid, he's likely to think that they're just a smokescreen to hide the real reasons.

6. Accept responsibility for the decision.

Don't blame policies, precedents, or your own superior for a decision. Make it clear that the decision is yours, or that you concur in it. Otherwise you may simply lose the employee's respect without gaining his sympathy. Any pretense that the rejection would not have been made if you had more control over the situation only makes you look like a messenger boy for somebody else. At best, the employee may decide that he should have gone over your head in the first place; at worst, he may feel that you are insincere and untrustworthy.

If the request was for a special favor, it's futile to try to justify a turndown by citing the rules or precedents that would be broken if it were granted. Even if the employee didn't know about the rule, he'll probably think that it wouldn't hurt the company to make an exception in his case. He won't be convinced unless you can show him why it *will* hurt.

Point out the specific effects that granting the request would have—on production, morale, safety, or other areas. If possible, back up your statements with instances in which such requests were granted. Be as specific as possible. Remember that you have to build a strong case, since the employee considers that his case is strong, too—otherwise he wouldn't have made the request in the first place.

If you have to say "no," be sure you don't grant the denied privilege to others later on. If an exception *is* justified in a later case, make sure that the first employee understands why.

7. Don't apologize.

Any attempts to butter up an employee after rejecting his request, or any unusual attention paid to him, may make him think you're trying to absolve yourself of what you knew was a bad decision. A perfectly innocent and friendly gesture can boomerang, leaving the employee convinced that your decision was unjust. It may even lead him to think that, if he keeps on pressuring you, he may yet get what he wants.

Make sure that your contacts with the employee after you've rejected his request show no special favoritism or solicitude. But don't stop your *normal* contacts with him.

8. Follow up.

Let the employee know that you haven't forgotten that he was sufficiently interested in an idea to approach you with it. Even though that idea couldn't be accepted, you'll want him to feel free to express new ones. If you make no further reference to his ideas, he may conclude that you never took them seriously to begin with.

—and don't sugar-coat!

All these suggestions on the art of saying "no" assume that candor between managers and employees is better for morale, in the long run, than attempts to sidestep or sugar-coat the unpleasantness inherent in any turndown. Fairness and courtesy speak for themselves when they are not concealed behind misguided sympathy.

• *Saul Gellerman*
NATION'S BUSINESS
August, 1959

"Do you have trouble making decisions?"

Corrosion: $7 Billion Problem for Industry

AT KURE BEACH, North Carolina, a salty wind whips across the white sand and swirls around a strange-looking object—a rack holding some 30,000 small pieces of metal. Periodically, a group of men arrive, huddle over the rack a while, making notations, and then drive off.

These men are metallurgists of the International Nickel Company. They are studying a costly, nagging problem: corrosion. The metal specimens comprise various alloys and anticorrosion coatings, and the data being collected indicates how they will stand up under long exposure to punishing weather conditions.

This intensive corrosion research points up a growing industrial concern over an old enemy. Corrosion is estimated by the National Association of Corrosion Engineers to cost the U.S. some $7 billion a year, and the missile and nuclear era has brought with it a mounting demand for materials that can offer better corrosion resistance.

In its broadest sense, corrosion is the gradual deterioration of a material, usually a metal, through a chemical or an electrochemical process. An acid, salt, or other chemical in the atmosphere or in an adjacent material might eat into the metal. Or moisture, coupled with minute impurities in a metal's structure, might start an electric current flowing from the metal. Microscopic bits of metal flow with the current, combining on the surface with oxygen to form the material which, on iron-based metals, is known as rust.

Usually, a good bit of moisture must be present before any appreciable oxidation can take place. With iron, for example, 40 per cent humidity is needed at ordinary temperatures. Thus, in International Nickel's research at Kure Beach, the pieces of metal are being tested under conditions highly conductive to corrosion.

The battle against corrosion has resulted in some spectacular successes, promising improvement of such corrosion-prone consumer products as automobile mufflers and home water heaters. A number of weapons are being used in the battle:

Coatings: A coating of paint is one of the oldest known anticorrosion methods, since paint acts as a barrier to keep moisture and oxygen from the metal. Plastics and such metals as zinc, aluminum, and chromium are also being used as coatings.

Electric control: Spectacular results are being achieved with cathodic protection—that is, controlling the flow of electric currents that produce corrosion.

Chemicals: Chemicals known as inhibitors protect metals immersed in liquids by forming a film between the metal and the liquid.

Nonmetallics: Noncorrosive materials such as plastics and ceramics are being substituted for metals to solve many corrosion problems.

Oxygen control: Oxygen may be removed from contact with metals, as in vacuum packing.

Alloys: New and better alloys, which are less susceptible to corrosion, are being used in automobile mufflers and hundreds of other products.

Corrosion research and newly dis-

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covered inhibitors already are yielding big savings by extending the useful life of materials and thus providing more trouble-free operations. For example, components used in several makes of 1959 air conditioners have a zinc-coating treatment under paint which is said to make them four times more rust resistant than former models.

Zirconium and tantalum, two rare anticorrosive metals which first found application in key miltary and atomic products, are now being introduced to industry for such commercial items as acid tanks and valves in chemical systems.

It has been long known that altering the natural flow of electrical current from a metal may reduce corrosion. A current may be applied from an outside source, reversing the flow of the natural rust-producing current. This may stop rusting entirely.

Several recent advances in this technique, known as cathodic protection, have resulted in spectacular successes in the anticorrosion battle. Rust-free ships are even promised, though salt water is a corrosive element which has plagued mariners ever since the first iron ship went down the ways.

Esso Standard Oil Company, New York, reports that formerly as many as 1,300 buckets full of rust were removed from the cargo tanks of its vessels after 25 voyages. Since magnesium anodes were installed in cargo tanks, only a "negligible amount" of rust has been removed from tankers.

Cathodic protection is also now being used extensively to protect the nation's 1.1 million miles of oil, gas, water, and sewage pipelines in the ground. Dow Chemical reports: "Cathodic protection of underground structures and transmission facilities has resulted in a drastic reduction of maintenance costs at our plants."

A Dow official cites a $192 annual investment in cathodic protection for salt-water-intake screens at the company's Freeport, Texas, plant. This investment saves more than $2,000 a year by extending the life of the screens, according to the company.

Paint makers are constantly seeking to improve their products so they will provide better protection against corrosion. Among the newer products of paint and chemical companies are silicone and urethane coatings.

Silicone coatings have high temperature resistance and provide excellent coverage for space heaters, smokestacks, auto mufflers, and similar equipment. Urethane coatings are being introduced for high-humidity applications: in swimming pools, on marine installations, and wherever humidity poses a rust problem.

• *Ray Vicker*
THE WALL STREET JOURNAL
Vol. CLIV No. 2

THE MAN WHO LIVES by himself and for himself is apt to be corrupted by the company he keeps.

—C. H. PARKHURST

Don't be

a Lightning Target!

SIX HUNDRED LIVES, 1,500 injuries, $120 million in property damage—that's the toll lightning is expected to take in the United States in 1959. Yet—contrary to the fatalistic feeling many people have about lightning—most of this damage is avoidable.

Who are the targets for lightning? This summer, these people were killed: In New Jersey, a golf caddie who was caught in a thundershower. In Illinois, a 16-year-old boy who was walking home from school. In South Dakota, a 29-year-old mother who was playing golf. In Wisconsin, an 11-year-old boy on a school playground, who was running for shelter.

Despite the high toll in lives, injuries, and property damage, many people today don't regard lightning as a serious danger. Perhaps they feel that if scientists can streak the sky with rockets and satellites, surely we must have such an old-fashioned thing as lightning under control.

Unfortunately lightning, like other manifestations of weather, is not under man's control. The best we can do is to control the results by understanding the behavior of lightning and by taking adequate precautions.

There are two reasons for the climbing toll from lightning: 1) Too many people just don't bother to get out of a lightning storm, and 2) the many new houses in suburban areas are good lightning targets.

Lightning usually strikes tall objects, because they provide the shortest possible contact between sky and earth. A suburban home often is the highest object in its area; and it is therefore extremely vulnerable to lightning.

About 40 per cent of all fires in suburban areas are caused by lightning. One reason for this may be that many suburbanites are unaware of the need for any kind of lightning protection. They don't realize that a bolt of lightning—containing about 25 cents' worth of electricity—can burn their houses to the ground and cause thousands of dollars' worth of damage.

People in open areas, such as fields, parks, and beaches, are also excellent lightning targets because they, too, are often the highest objects in the area.

But lightning is fickle—it doesn't always select the highest objects. It has been known to seek out a low target, snuggled between two high buildings.

How many times will lightning come close to your house this year? You can expect one or two strokes for every thunderstorm in the square mile you live in. If your area, for example, has 50 storms in a year, you can expect from 50 to 100 lightning bolts to hit within half a mile of your house.

If you are caught in a thunderstorm, you should remember:

► The most dangerous time is just before the storm, when dark clouds

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appear and the air feels charged with electricity. If you are outdoors and your hair feels as if it is standing on end, you may be getting set up as a perfect lightning target. Lie down in a ditch or other depression, if possible, or lie flat on the ground if you can't find safe shelter.

► Some places are particularly dangerous during a lightning storm—for example, a golf course, whether in the open or in an exposed shelter; the water—whether you're swimming or in a boat; the top of a hill; the beach; under an isolated tree; near a wire fence, wire clothesline, overhead wires, or towers; or on a bike, tractor, horse, or farm machinery.

► If you find yourself caught in such a place, the first thing to do is to look for a building protected with lightning rods, or a steel-frame building. If you're in a car, stay inside it and keep the windows closed. If you can't find shelter, get into a ravine, under a cliff, in a ditch, or in a cave; or lie flat on the ground.

► If you are in an unprotected building, don't stand in a doorway or near an open window. Keep away from metal objects, the fireplace, sink, bathroom fixtures, telephone, or TV set.

The two main principles: 1) *If you sense that a thunderstorm is coming, find shelter immediately;* don't wait until the storm is upon you. 2) *During a storm, don't ever let yourself be the highest object in the area.*

To keep your home safe from lightning, there's only one thing to do: Put in a lightning-protection system of light metal rods and conductors that will carry the electricity safely into the ground. Don't depend on TV antennas; they may, in fact attract lightning without safely grounding it. And insist that your lightning-protection system is tagged with the Underwriters Laboratories label.

In this business as in many others, fraudulent dealers try to fleece unwary homeowners by selling them almost worthless lightning protection. If the equipment has the approval of the nonprofit Underwriters Laboratories, it carries a guarantee that the system will protect your home.

The best all-around, practical protection from lightning is the recognition that it is an element to be respected—a deadly force that can be wild and dangerous. If you recognize this, chances are you'll take the proper precautions.

• *Jean E. Carper*
HOME SAFETY REVIEW
Fall, 1959

Going My Way?

THE CAR POOL, a widely used device during World War II, is being revived. Here's why large companies are encouraging them:

1. Car pools tend to reduce traffic congestion on highways leading to plants. Congestion frequently causes tardiness and accidents.
2. Pools ease the jam at company gates and parking-lot entrances, and also reduce the number of guards needed at these locations.
3. Pools reduce the area that plants must devote to parking lots.
4. For employees, pools reduce gasoline costs and parking charges, and free the passengers' cars for home use.

—ELMER ROESSNER in *Business Today*

Is There an "Alcoholic Personality"?

ALCOHOLISM is America's most serious drug addiction. It stands fourth as a cause of serious illness in the U. S., exceeded only by heart disease, cancer, and mental illness. Estimates of the number of alcoholics in the U. S. indicate that, in 1953, there were approximately 4.5 million; by 1956, the number had grown to more than 5 million. Not more than 7 per cent are thought to be on Skid Row, and only about 6 per cent seek help through out-patient clinics or Alcoholics Anonymous.

The experience gained by Consolidated Edison since the establishment of a company procedure on alcoholism leads them to believe that the incidence of alcoholism in industry as a whole is at least 2 per cent—and other estimates place the percentage even higher.

How does one recognize the victim of this disease? To detect a confirmed addict requires no great keenness. It is more difficult to recognize an alcoholic in what we might call the incubation phase of his illness, before he becomes a confirmed addict. And, difficult as spotting him may be, it is even more difficult to convince him of his condition and of his need for help.

Superficially, alcoholics seem to differ widely from each other. Some appear outgoing, aggressive, and competent, and have a great deal of charm; others appear to be quiet, withdrawn, retiring, depressed, and often hostile, leading a lonely, single life with few interests outside the routine of the job. Yet, upon closer study, it becomes apparent that these superficial attributes represent different attempts to face life's stresses on the part of people who basically have deeper, more hidden emotional or psychological needs in common.

These diverse, superficial characteristics, whether they are outgoing or retiring, are the outward, visible signs of basically dependent people, who seem to have a lowered tolerance for frustration and tension. At the same time —and this is the important factor— these people have not been able to develop psychological techniques for handling their frustrations and tensions constructively.

Because such people have not matured to the point where they feel normally self-reliant, they are in a constant state of needing to find something or someone to count on to help them through. When they are given this support, they may be warm and loving; but when the support is not sufficient to meet their needs, their sense of abandonment is so intense that they are capable of extreme feelings of resentment and hostility.

One might say that the alcoholic shares the common need that everyone has to soften life's disappointments and responsibilities. But the alcoholic has never been able to feel that he can cope with these himself. He feels surrounded by overwhelming expectations—from himself and from the people around him—which he cannot hope to meet.

These deep, dependent longings are not compatible with the adult alcoholic's concept of himself, and the resulting conflict leads to anxiety, tension, and depression—which the alcoholic's lowered tolerance cannot

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stand. Alcohol provides immediate, though temporary, relief. It allays the sufferer's conscience and allows him to discharge feelings that are utterly unacceptable to him when he is sober—feelings whose release would otherwise be prevented by his sense of fitness or his realization of the consequences.

It may seem paradoxical, but the conscience of an alcoholic is a fearfully severe one, constantly demanding, entirely uncompromising and, most often, setting unrealistic standards for both himself and others. Since he cannot meet his own grandiose standards, he inevitably suffers further loss of self-esteem, feelings of guilt, self-hate, and hopelessness—and again, he turns to alcohol. This loss of self-esteem is particularly strong after an alcoholic bout when he is depressed, hopeless, and often suicidal. He despises what he is doing, but he is driven by intolerable feelings.

One of the difficulties in trying to show the alcoholic that he is ill results from his excessive use of a psychic mechanism, which we all use to some degree, called *denial*. The alcoholic uses denial for all it's worth.

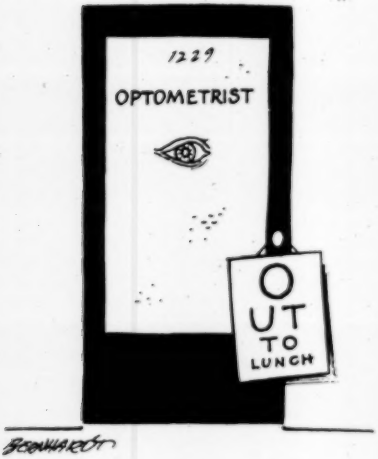
Denial goes beyond what may be described as putting on the best face in a situation—it implies that the situation does not exist. This is not a conscious process; it is entirely distinct from lying, although it is sometimes difficult to believe that a person cannot actually see what is so obvious to the objective observer. The alcoholic sees no problem because he believes he could stop drinking if he wished. In other words, he denies that he cannot control his drinking by stating that he could if he happened to want to. This emotionally induced blind spot is recognized by Alcoholics Anonymous, whose first step is a psychologically sound one: "We admit we are powerless over alcohol. Our lives have become unmanageable."

Without a personal conviction that he is in the grip of an impulse which, however destructive, he cannot control, the alcohol addict cannot even try to give up the one thing that has made life endurable. Even when he does have this conviction, he will need much support and understanding while he tries to build up his tension tolerance—to become strong enough to put off immediate relief for greater future gratification and to acquire new and more acceptable means of reducing his tensions. At the same time, he must be helped to acquire a more realistic appraisal of himself so he can accept his limitations as well as his abilities; that is, the severity of his conscience must be reduced to raise his tattered self-esteem.

•*Frances I. Colonna, M.D.*
THE MANAGEMENT REVIEW
September, 1959

THE FARTHER BACKWARD you can look, the farther forward are you likely to see.

—SIR WINSTON CHURCHILL



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1. The names and address of the publisher, editor, editorial director, executive editor, and business manager are: Publisher, American Management Association, Inc., 1515 Broadway, New York 36, N. Y. Editorial director, Harwood F. Merrill, 1515 Broadway, New York 36, N. Y.; Editor, Vivienne Marquis, 1515 Broadway, New York 36, N. Y.; Executive editor, Lydia Strong, 1515 Broadway, New York 36, N. Y.; Business manager, none. 2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.) American Management Association, Inc., 1515 Broadway, New York 36, N. Y.; Lawrence A. Appley, President, 1515 Broadway, New York 36, N. Y.; James L. Madden, Treasurer, 1 Madison Avenue, New York 10, N. Y. 3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None. 4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

HARWOOD F. MERRILL, Editorial Director

Sworn to and subscribed before me this 17th day of September, 1959.

CATHERINE F. ANTONUCCI, Notary Public. (My commission expires March 30, 1961.)

(Seal)

An index to SUPERVISORY MANAGEMENT is published annually in the December issue. The contents are indexed monthly in the *Business Periodicals Index* published by The H. W. Wilson Company. SUPERVISORY MANAGMENT is microfilmed by University Microfilms, Ann Arbor, Michigan.

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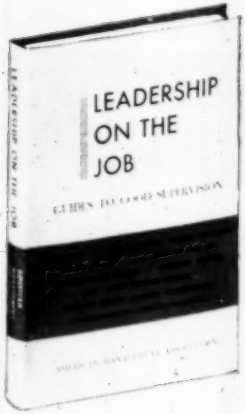

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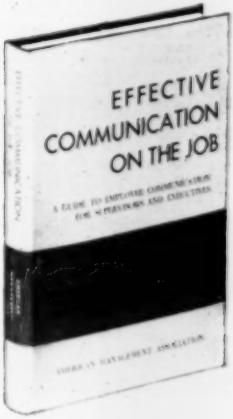

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